John Coleman, Project Manager
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Floor 3
West Bridgewater, MA 02379
Mobile: (240) 615 -7389
JColeman@clinellc.com

May 9, 2021

Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: Notice of Exempt Modification // Site: TRUMBULL CT (ATC: 210746)
158 Edison Rd., Trumbull, CT, 06611
N 41.23430995 // W 73.21882375

Dear Ms. Bachman,

Cellco Partnership d/b/a Verizon Wireless currently maintains 9 antenna at the 109' level on the existing 149 ft Monopole Tower, located at 158 Edison Rd., Trumbull, CT. The tower is owned by American Tower. The property is owned by the Town of Trumbull. Verizon Wireless now intends to install three (3) new antenna for the LTE (3700 MHz) replacements for its 5G upgrade. Additionally, Verizon Wireless will remove three (3) antenna and nine (9) existing RRH's and install a new Mount Modification, six (6) RRH's and associated cabling; altogether updating leased equipment rights, as reflected by the final configuration outlined in the structural analysis and proposed hereby.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Vicki A. Tesoro, First Selectwoman, its Building Offical, Robert Dunn, American Tower, the tower owner, and property owner, the Town of Trumbull, First Selectwoman.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2). Enclosed to accommodate this filing are construction drawings dated April, 2022, by AT Engineering Services, PLLC, a structural analysis dated July 9, 2021, by American Tower Corporation, and a structural mount analysis by GPD Engineering And Architecture Professional Corp. date October 21, 2021, and radio frequency (RF) analysis table showing worst-case RF emission calculation by Verizon Wireless RF Design Engineering.

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the new antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis by American Tower Corporation, dated July 9, 2021, and a structural mount analysis by GPD Engineering And Architecture Professional Corp., dated October 21, 2021, pursuant to certain conditions defined therein. Design and engineering is fully illustrated within final construction drawings, signed and stamped dated April 27, 2022.

For the foregoing reasons, Verizon Wireless respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

John Coleman

_____

John Coleman, Project Manager
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Floor 3
West Bridgewater, MA 02379
Mobile: (240) 615 -7389
JColeman@clinellc.com

Attachments
cc: Jennifer Tooker, First Selectwoman – Chief Elected Official
Joel Skilton – Zoning Enforcement Officer - as P&Z official
Cellco Partnership - Property Owner

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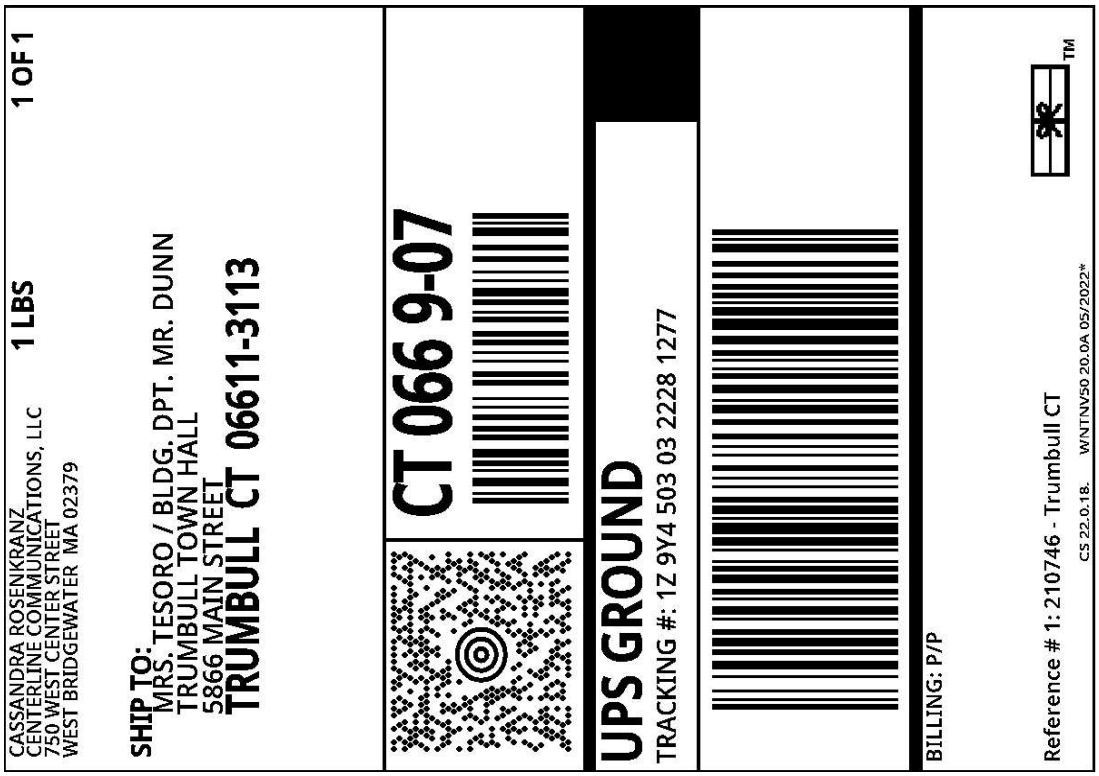

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To: John Coleman
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030322281277
Date: Thursday, May 12, 2022 11:56:56 AM

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Delivery Date: Thursday, 05/12/2022
Delivery Time: 11:54 AM
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CENTERLINE SITE ACQUISITION

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Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
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DOCKET NO. 421 – T-Mobile Northeast LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 158 Edison Road, Trumbull, Connecticut.	}	Connecticut Siting Council April 26, 2012

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, maintenance, and operation of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to T-Mobile Northeast LLC, hereinafter referred to as the Certificate Holder, for a telecommunications facility at 158 Edison Road in Trumbull, Connecticut.

Unless otherwise approved by the Council, the facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The tower shall be constructed as a monopole, sufficient to accommodate the antennas of T-Mobile and other entities, both public and private, but such tower shall not exceed a height of 130 feet above ground level.

2. The Certificate Holder shall install a tower foundation and tower that is capable of supporting an extension. Any extension of the tower must be approved by the Council.

3. Panel antennas shall be mounted cluster-mount configuration or as otherwise determined by the Council.

4. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Trumbull for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
    a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line, and landscaping; and
    b) construction plans for site clearing, grading, landscaping, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

5. Prior to the commencement of operation, the Certificate Holder shall provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

6. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.

7. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.

8. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed with at least one fully operational wireless telecommunications carrier providing wireless service within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The Certificate Holder shall provide written notice to the Executive Director of any schedule changes as soon as is practicable.

9. Any request for extension of the time period referred to in Condition 8 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Trumbull. Any proposed modifications to this Decision and Order shall likewise be so served.

10. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.

11. Any nonfunctioning antenna, and associated antenna mounting equipment, on this facility shall be removed within 60 days of the date the antenna ceased to function.

12. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction, and the commencement of site operation.

13. The Certificate Holder shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v.

14. This Certificate may be transferred in accordance with Conn. Gen. Stat. §16-50k(b), provided both the Certificate Holder/transferor and the transferee are current with payments to the Council for their respective annual assessments and invoices under Conn. Gen. Stat. §16-50v. In addition, both the Certificate Holder/transferor and the transferee shall provide the Council a written agreement as to the entity responsible for any quarterly assessment charges under Conn. Gen. Stat. §16-50v(b)(2) that may be associated with this facility.

15. The Certificate Holder shall maintain the facility and associated equipment, including but not limited to, the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line and landscaping in a reasonable physical and operational condition that is consistent with this Decision and Order and a Development and Management Plan to be approved by the Council.

16. If the Certificate Holder is a wholly-owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the Certificate Holder within 30 days of the sale and/or transfer.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Connecticut Post.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

Applicant	**Its Representative**
T-Mobile Northeast, LLC	Julie D. Kohler, Esq. Cohen and Wolf, P.C. 1115 Broad Street Bridgeport, CT 06604
Intervenor	**Its Representative**
Citizens Against Trumbull Tower	Keith R. Ainsworth, Esq Evans Feldman & Ainsworth, L.L.C. P.O. Box 1694 New Haven, CT 06507-1694

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

telamon
Tower Engineering PLLC

Structural Analysis Report

Structure	:	**149 ft Monopole**
ATC Site Name	:	**Trumbull CT,CT**
ATC Site Number	:	**210746**
Engineering Number	:	**13756735_C3_03**
Proposed Carrier	:	**VERIZON WIRELESS**
Carrier Site Name	:	**TRUMBULL SO III CT**
Carrier Site Number	:	**467849**
Site Location	:	**158 Edison Road** **Trumbull, CT 06611** **41.2343, -73.2188**
County	:	**Fairfield**
Date	:	**January 28, 2022**
Max Usage	:	**37%**
Result	:	**Pass**

Prepared By:

Temitope Olaniyan
CLS

Reviewed By:

Digitally signed by William Holt
Date: 2022.01.28 17:09:17 -05'00'

STATE OF CONNECTICUT
WILLIAM HOLT
PEN.35568
LICENSED PROFESSIONAL ENGINEER

William Holt, PE
Director of Engineering
License No. 35568 Expires: 01/31/2023

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 149 ft Monopole to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower Drawings	Valmont Order #291087, dated September 4, 2015
Foundation Drawing	Valmont Order #291087, dated September 4, 2015
Geotechnical Report	Terracon Project #J2135196, dated October 17, 2013

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	118 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.00" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Crest Height (H):	0 ft
Spectral Response:	Ss = 0.21, S_1 = 0.05
Site Class:	D - Stiff Soil - Default

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
151.9	1	Decibel DS1F06F36U3D	T-Arm with Platform	(9) 7/8" Coax (2) 1 1/4" Coax	TOWN OF TRUMBELL, CT
151.4	3	Generic 16' Omni			
148.8	2	Generic 8' Dipole			
148.1	2	Andrew DB809KE-XT			
143.0	1	Telewave ANT770F2			
	2	Radio Waves HPD2-4.7NS			
140.0	3	Ericsson AIR 21, 1.3M, B4A B2P	Sector Frame	(3) 1 5/8" Hybriflex (12) 1 5/8" Coax	T-MOBILE
	3	Andrew LNX-6515DS-VTM			
	3	Ericsson AIR 21, 1.3 M, B2A B4P			
120.0	3	Ericsson RRUS 4426 B66			
	3	Ericsson RRUS 11 B12			
	3	Ericsson AIR 6449 B41			
	3	Commscope Air 32 Dual Band			
	3	Commscope FFVV-65C-R3-V1			
	3	Ericsson KRY 112 71			
109.0	6	Commscope SBNHH-1D65B	T-Arm	(2) 1 5/8" (1.63"-41.3mm) Fiber	VERIZON WIRELESS
	2	Raycap RxxDC-3315-PF-48			
99.0	3	Fujitsu TA08025-B604	Triangular Platform with Handrails	(1) 1.63" (41.3mm) Hybrid	DISH WIRELESS L.L.C.
	3	JMA Wireless MX08FRO665-21			
	1	Raycap RDIDC-9181-PF-48			
	3	Fujitsu TA08025-B605			
69.6	1	Generic 16' Omni	Stand-Off	(1) 7/8" Coax	TOWN OF TRUMBELL, CT

Equipment to be Removed

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
109.0	3	Alcatel-Lucent B13 RRH4x30-4R 700U	-	-	VERIZON WIRELESS
	3	Commscope SBNHH-1D65B			
	3	Alcatel-Lucent RRH4x45-B66 w/o Solar Shield			
	3	Alcatel-Lucent 1900 MHz 4X45 RRH			

Proposed Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
109.0	3	Samsung RF4440d-13A	T-Arm	-	VERIZON WIRELESS
	3	Samsung RF4439d-25A			
	3	Samsung MT6407-77A			

[1] Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	37%	Pass
Shaft	36%	Pass
Base Plate	9%	Pass
Flange	8%	Pass

Foundation

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	2340.8	35%
Axial (Kips)	47.7	25%
Shear (Kips)	23.6	10%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
143.0	Radio Waves HPD2-4.7NS	TOWN OF TRUMBELL, CT	0.765	0.550
109.0	Samsung RF4439d-25A	VERIZON WIRELESS	0.457	0.480
	Samsung MT6407-77A			
	Samsung RF4440d-13A			

***Deflection and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-H**

Standard Conditions

All engineering services performed by ATC Tower Services LLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of ATC Tower Services LLC

It is the responsibility of the client to ensure that the information provided to ATC Tower Services LLC and used in the performance of our engineering services is correct and complete.

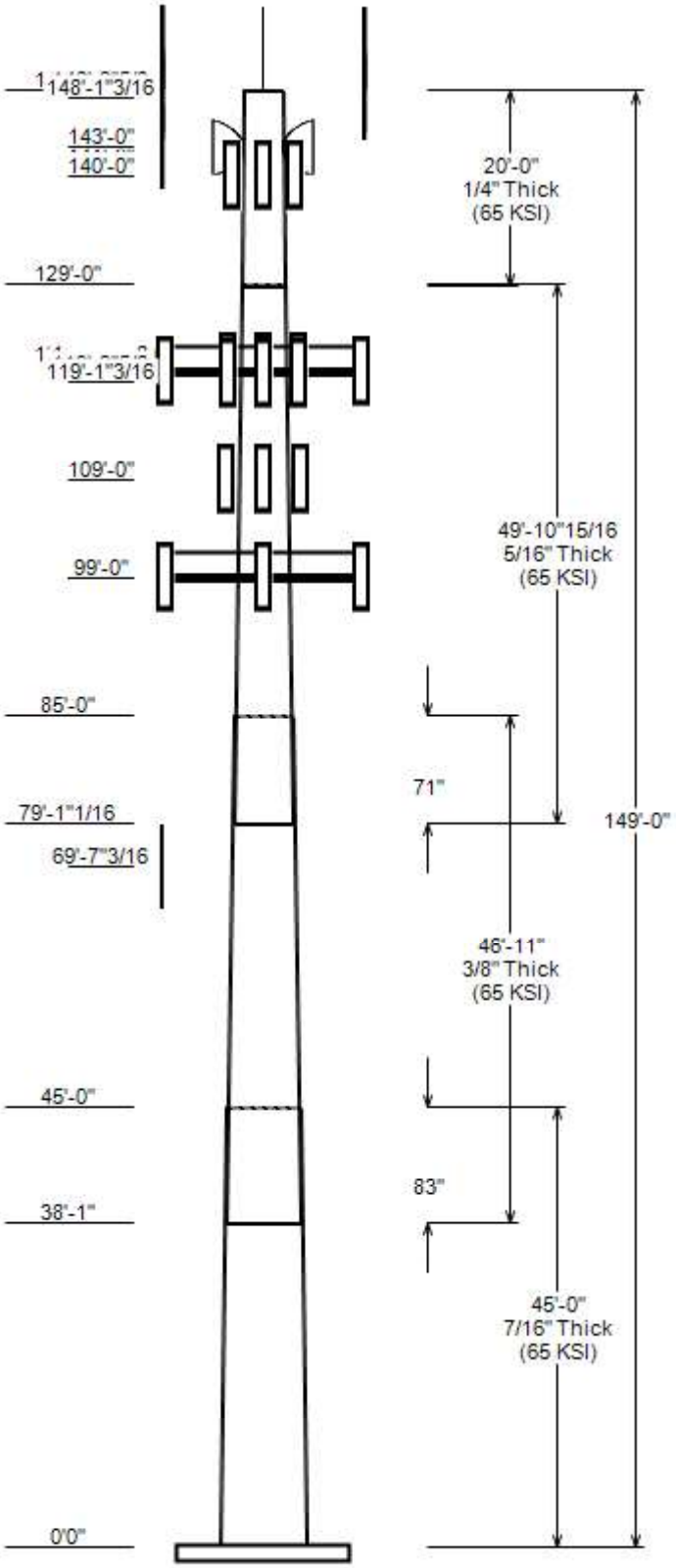
All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and ATC Tower Services LLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

JOB INFORMATION

Asset :	210746, Trumbull CT	Height :	149 ft
Client :	VERIZON WIRELESS	Base Width :	59.5
Code :	ANSI/TIA-222-H	Shape :	18 Sides



SITE PARAMETERS

Base Elev (ft):	0.00	Structure Class:	II
Taper :	0.24700 (In/ft)	Exposure :	B
Topographic Category :	1	Topographic Feature:	
Topo Method :	Method 1		

SECTION PROPERTIES

Shaft Section	Length (ft)	Diameter (in) Across Flats Top	Diameter (in) Across Flats Bottom	Thick (in)	Joint Type	Overlap Length (in)	Shape	Steel Grade (ksi)
1	45.000	48.36	59.50	0.438		0.000	18 Sides	65
2	46.917	39.21	50.82	0.375	Slip Joint	83.000	18 Sides	65
3	49.909	28.95	41.30	0.312	Slip Joint	70.910	18 Sides	65
4	20.000	24.00	28.95	0.250	Butt Joint	0.000	18 Sides	65

DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
149.0	151.4	3	Generic 16' Omni
149.0	151.9	1	Decibel DS1F06F36U3D
148.8	148.8	2	Generic 8' Dipole
148.1	148.1	2	Andrew DB809KE-XT
143.0	143.0	1	Telewave ANT770F2
143.0	143.0	2	Radio Waves HPD2-4.7NS
141.0	141.0	3	T-Arm with Platform
140.0	140.0	3	Ericsson AIR 21, 1.3 M, B2A B4
140.0	140.0	3	Ericsson AIR 21, 1.3M, B4A B2P
140.0	140.0	3	Andrew LNX-6515DS-VTM
120.9	120.9	3	Ericsson RRUS 4426 B66
120.8	120.8	3	Ericsson RRUS 11 B12
120.5	120.5	3	Ericsson AIR 6449 B41
120.0	120.0	3	Commscope Air 32 Dual Band
120.0	120.0	3	Generic Round Sector Frame
119.8	119.8	3	Commscope FFVV-65C-R3-V1
119.1	119.1	3	Ericsson KRY 112 71
109.0	109.0	3	Samsung RF4440d-13A
109.0	109.0	3	Samsung RF4439d-25A
109.0	109.0	2	Raycap RxxDC-3315-PF-48
109.0	109.0	3	Samsung MT6407-77A
109.0	109.0	6	Commscope SBNHH-1D65B
109.0	109.0	3	Round T-Arm
99.0	99.0	1	Raycap RDIDC-9181-PF-48
99.0	99.0	3	Fujitsu TA08025-B604
99.0	99.0	3	Fujitsu TA08025-B605
99.0	99.0	3	JMA Wireless MX08FRO665-21
99.0	99.0	1	Generic Round Platform with Ha
69.6	69.6	1	Generic 16' Omni

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	148.0	7/8" Coax	No
0.0	143.0	1 1/4" Coax	No
0.0	140.0	1 5/8" Hybriflex	No
0.0	140.0	1 5/8" Hybriflex	No
0.0	120.0	1 5/8" Coax	No
0.0	109.0	1 5/8" (1.63"-41.3mm) Fiber	No
0.0	99.0	1.63" (41.3mm) Hybrid	No
0.0	69.0	7/8" Coax	Yes

LOAD CASES

1.2D + 1.0W	118 mph wind with no ice

JOB INFORMATION			
Asset :	210746, Trumbull CT	Height :	149 ft
Client :	VERIZON WIRELESS	Base Width :	59.5
Code :	ANSI/TIA-222-H	Shape :	18 Sides

0.9D + 1.0W	118 mph wind with no ice
1.2D + 1.0Di + 1.0Wi	50 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	60 mph Wind with No Ice

REACTIONS

Load Case	Moment (kip-ft)	Shear (Kip)	Axial (Kip)
1.2D + 1.0W	2340.77	23.56	47.70
0.9D + 1.0W	2326.26	23.55	35.77
1.2D + 1.0Di + 1.0Wi	651.94	6.63	62.48
1.2D + 1.0Ev + 1.0Eh	147.77	1.39	47.66
0.9D - 1.0Ev + 1.0Eh	146.65	1.39	32.71
1.0D + 1.0W	539.29	5.45	39.77

DISH DEFLECTIONS

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	143.00	9.183	0.545

ANALYSIS PARAMETERS

Location:	Fairfield County,CT	**Height:**	149 ft
Type and Shape:	Custom, 18 Sides	**Base Diameter:**	59.50 in
Manufacturer:	Valmont	**Top Diameter:**	28.95 in
K_d (non-service):	0.95	**Taper:**	0.2470 in/ft
K_e:	0.99	**Rotation:**	0.000°

ICE & WIND PARAMETERS

Exposure Category:	B	**Design Wind Speed w/o Ice:**	118 mph
Risk Category:	II	**Design Wind Speed w/Ice:**	50 mph
Topo Factor Procedure:	Method 1	**Operational Wind Speed:**	60 mph
Topographic Category:	1	**Design Ice Thickness:**	1.00 in
Crest Height:	0 ft	**HMSL:**	320.00 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil			**Period Based on Rayleigh Method (sec):**	1.65
T_L (sec):	6	**P:**	1	**C_s:**	0.035
S_s:	0.212	**S_1:**	0.054	**C_s Max:**	0.035
F_a:	1.600	**F_v:**	2.400	**C_s Min:**	0.030
S_{ds}:	0.226	**S_{d1}:**	0.086		

LOAD CASES

1.2D + 1.0W	118 mph wind with no ice
0.9D + 1.0W	118 mph wind with no ice
1.2D + 1.0Di + 1.0Wi	50 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	60 mph Wind with No Ice

SHAFT SECTION PROPERTIES

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (in²)	Bottom Ix (in⁴)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (in)	Top Area (in²)	Top Ix (in⁴)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-18	45.00	0.4375	65		0.00	11,374	59.50	0.000	82.01	36,145.8	22.22	136.00	48.36	45.00	66.55	19,311.2	17.73	110.54	0.2475
2-18	46.92	0.3750	65	Slip	83.00	8,483	50.82	38.083	60.05	19,308.3	22.13	135.53	39.21	85.00	46.22	8,809.1	16.67	104.57	0.2475
3-18	49.91	0.3125	65	Slip	70.91	5,864	41.30	79.091	40.65	8,628.8	21.54	132.16	28.95	129.00	28.40	2,942.3	14.57	92.63	0.2475
								129.00								1,343.0			
4-18	20.00	0.2500	65	Butt	0.00	1,416	28.95	0	22.77	2,369.9	18.66	115.80	24.00	149.00	18.84		15.16	96.00	0.2475

Shaft Weight 27,137

DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor
149.00	Generic 16' Omni	3	1.00	2.400	55.00	4.800	1.00	135.49	8.597	1.00
149.00	Decibel DS1F06F36U3D	1	1.00	2.900	60.00	6.570	1.00	169.83	11.740	1.00
148.80	Generic 8' Dipole	2	1.00	0.000	25.00	3.010	1.00	84.64	6.119	1.00
148.10	Andrew DB809KE-XT	2	1.00	0.000	37.50	3.660	1.00	99.05	6.569	1.00
143.00	Radio Waves HPD2-4.7NS	2	1.00	0.000	27.00	3.960	1.00	82.22	4.739	1.00
143.00	Telewave ANT770F2	1	1.00	0.000	8.00	1.180	1.00	27.58	2.004	1.00
141.00	T-Arm with Platform	3	0.75	0.000	400.00	16.200	0.75	584.94	23.690	0.75
140.00	Andrew LNX-6515DS-VTM	3	0.80	0.000	51.30	11.430	0.70	203.10	13.576	0.70
140.00	Ericsson AIR 21, 1.3M, B4A B2P	3	0.80	0.000	81.50	6.092	0.70	177.80	7.525	0.70
140.00	Ericsson AIR 21, 1.3 M, B2A B4	3	0.80	0.000	83.00	6.049	0.71	179.65	7.481	0.71
120.90	Ericsson RRUS 4426 B66	3	0.80	0.000	48.40	1.650	0.50	77.59	2.205	0.50
120.80	Ericsson RRUS 11 B12	3	0.80	0.000	50.70	2.791	0.50	98.03	3.508	0.50
120.50	Ericsson AIR 6449 B41	3	0.80	0.000	101.60	5.500	0.63	188.13	6.524	0.63
120.00	Generic Round Sector Frame	3	0.75	0.000	300.00	14.400	0.67	540.28	25.213	0.67
120.00	Commscope Air 32 Dual Band	3	0.80	0.000	132.20	6.510	0.71	236.46	7.941	0.71
119.80	Commscope FFVV-65C-R3-V1	3	0.80	0.000	124.60	21.113	0.63	394.52	23.543	0.63
119.10	Ericsson KRY 112 71	3	0.80	0.000	13.20	0.583	0.50	25.13	0.944	0.50
109.00	Round T-Arm	3	0.75	0.000	312.50	9.700	0.67	481.22	15.024	0.67
109.00	Commscope SBNHH-1D65B	6	0.80	0.000	50.70	8.173	0.69	164.05	10.001	0.69
109.00	Samsung MT6407-77A	3	0.80	0.000	81.60	4.709	0.61	147.43	5.690	0.61
109.00	Raycap RxxDC-3315-PF-48	2	0.80	0.000	21.40	2.512	0.50	72.85	3.184	0.50
109.00	Samsung RF4440d-13A	3	0.80	0.000	70.30	1.875	0.50	109.27	2.458	0.50
109.00	Samsung RF4439d-25A	3	0.80	0.000	74.70	2.500	0.50	126.32	3.176	0.50
99.00	Raycap RDIDC-9181-PF-48	1	0.75	0.000	21.90	1.867	0.50	58.29	2.443	0.50
99.00	Fujitsu TA08025-B605	3	0.75	0.000	75.00	1.962	0.50	115.07	2.550	0.50
99.00	Fujitsu TA08025-B604	3	0.75	0.000	63.90	1.962	0.50	101.20	2.550	0.50
99.00	JMA Wireless MX08FRO665-21	3	0.75	0.000	64.50	12.489	0.64	228.88	14.286	0.64
99.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	3535.88	42.833	1.00
69.60	Generic 16' Omni	1	1.00	0.000	55.00	4.800	1.00	129.35	8.307	1.00
Totals	Num Loadings: 29	76			9,722.90			18,034.28		

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg) : 0.00

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax/ Row	Dist Between Rows(in)	Dist Between Cols(in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	148.00	9	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	TOWN OF TRUMB
0.00	143.00	2	1 1/4" Coax	1.55	0.63	N	0	0	0	0	0	N	TOWN OF TRUMB
0.00	140.00	2	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	T-MOBILE
0.00	140.00	1	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	T-MOBILE
0.00	120.00	12	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	T-MOBILE
0.00	109.00	2	1 5/8" (1.63"-41.3mm)	1.63	1.61	N	0	0	0	0	0	N	VERIZON WIREL
0.00	99.00	1	1.63" (41.3mm) Hybrid	1.63	1.91	N	0	0	0	0	0	N	DISH WIRELESS
0.00	69.00	1	7/8" Coax	1.09	0.33	N	1	0	0	90	1	Y	TOWN OF TRUMB

SEGMENT PROPERTIES

(Max Len: 5.ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in^3)	Z (in^3)	Weight (lb)
0.00		0.4375	59.500	82.013	36,145.80	22.22	136.00	75.3	1196.5	0.0	0.0
5.00		0.4375	58.263	80.294	33,921.10	21.72	133.17	75.9	1146.7	0.0	1,380.7
10.00		0.4375	57.025	78.576	31,789.50	21.22	130.34	76.4	1098.0	0.0	1,351.5
15.00		0.4375	55.788	76.858	29,749.20	20.72	127.51	77	1050.3	0.0	1,322.3
20.00		0.4375	54.550	75.139	27,798.10	20.22	124.69	77.6	1003.7	0.0	1,293.0
25.00		0.4375	53.313	73.421	25,934.20	19.72	121.86	78.2	958.1	0.0	1,263.8
30.00		0.4375	52.075	71.703	24,155.60	19.22	119.03	78.8	913.6	0.0	1,234.6
35.00		0.4375	50.838	69.984	22,460.20	18.73	116.20	79.4	870.2	0.0	1,205.3
38.08	Bot - Section 2	0.4375	50.074	68.925	21,455.40	18.42	114.46	79.7	843.9	0.0	728.7
40.00		0.4375	49.600	68.266	20,846.10	18.23	113.37	80	827.8	0.0	837.2
45.00	Top - Section 1	0.3750	49.113	58.008	17,408.70	21.33	130.97	76.3	698.2	0.0	2,146.3
50.00		0.3750	47.875	56.535	16,116.00	20.75	127.67	77	663.0	0.0	974.4
55.00		0.3750	46.638	55.062	14,888.90	20.17	124.37	77.7	628.8	0.0	949.3
60.00		0.3750	45.400	53.589	13,725.80	19.58	121.07	78.4	595.5	0.0	924.3
65.00		0.3750	44.163	52.116	12,624.80	19.00	117.77	79.1	563.1	0.0	899.2
69.60		0.3750	43.024	50.761	11,665.50	18.47	114.73	79.7	534.0	0.0	805.2
70.00		0.3750	42.925	50.643	11,584.40	18.42	114.47	79.7	531.6	0.0	69.0
75.00		0.3750	41.688	49.170	10,602.80	17.84	111.17	80.4	501.0	0.0	849.1
79.09	Bot - Section 3	0.3750	40.675	47.965	9,842.20	17.36	108.47	81	476.6	0.0	676.1
80.00		0.3750	40.450	47.698	9,678.20	17.26	107.87	81.1	471.3	0.0	273.4
85.00	Top - Section 2	0.3125	39.837	39.202	7,737.70	20.71	127.48	77	382.6	0.0	1,476.4
90.00		0.3125	38.600	37.975	7,033.40	20.02	123.52	77.9	358.9	0.0	656.5
95.00		0.3125	37.363	36.748	6,373.20	19.32	119.56	78.7	336.0	0.0	635.7
99.00		0.3125	36.373	35.766	5,875.90	18.76	116.39	79.3	318.2	0.0	493.5
100.00		0.3125	36.125	35.520	5,755.70	18.62	115.60	79.5	313.8	0.0	121.3
105.00		0.3125	34.888	34.293	5,179.40	17.92	111.64	80.3	292.4	0.0	593.9
109.00		0.3125	33.898	33.311	4,747.10	17.36	108.47	81	275.8	0.0	460.1
110.00		0.3125	33.650	33.065	4,642.90	17.22	107.68	81.1	271.8	0.0	112.9
115.00		0.3125	32.413	31.838	4,144.90	16.53	103.72	82	251.9	0.0	552.1
119.10		0.3125	31.398	30.832	3,764.10	15.95	100.47	82.6	236.1	0.0	437.2
119.80		0.3125	31.225	30.660	3,701.50	15.86	99.92	82.6	233.5	0.0	73.2
120.00		0.3125	31.175	30.611	3,683.70	15.83	99.76	82.6	232.7	0.0	20.8
120.50		0.3125	31.051	30.488	3,639.60	15.76	99.36	82.6	230.9	0.0	52.0
120.80		0.3125	30.977	30.414	3,613.30	15.72	99.13	82.6	229.7	0.0	31.1
120.90		0.3125	30.952	30.390	3,604.50	15.70	99.05	82.6	229.4	0.0	10.3
125.00		0.3125	29.938	29.383	3,258.10	15.13	95.80	82.6	214.4	0.0	417.0
129.00	Top - Section 3	0.3125	28.948	28.401	2,942.30	14.57	92.63	82.6	200.2	0.0	393.3
129.00	Bot - Section 4	0.2500	28.950	22.773	2,369.90	18.66	115.80	79.5	161.2	0.0	
130.00		0.2500	28.702	22.576	2,309.10	18.48	114.81	79.7	158.5	0.0	77.2
135.00		0.2500	27.465	21.594	2,020.70	17.61	109.86	80.7	144.9	0.0	375.8
140.00		0.2500	26.227	20.612	1,757.40	16.74	104.91	81.7	132.0	0.0	359.1
141.00		0.2500	25.980	20.416	1,707.70	16.56	103.92	81.9	129.5	0.0	69.8
143.00		0.2500	25.485	20.023	1,611.00	16.21	101.94	82.3	124.5	0.0	137.6
145.00		0.2500	24.990	19.630	1,518.00	15.86	99.96	82.6	119.6	0.0	134.9
148.10		0.2500	24.223	19.022	1,381.10	15.32	96.89	82.6	112.3	0.0	203.9
148.80		0.2500	24.049	18.884	1,351.40	15.20	96.20	82.6	110.7	0.0	45.1
149.00		0.2500	24.000	18.845	1,343.00	15.16	96.00	82.6	110.2	0.0	12.8
									Totals:		27,136.9

Load Case: 1.2D + 1.0W 118 mph wind with no ice 23 Iterations
Gust Response Factor: 1.10
Dead load Factor: 1.20
Wind Load Factor: 1.00

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-47.70	-23.56	0.00	-2,340.8	0.00	2,340.77	5,555.74	1,439.32	7,678.22	6,754.63	0	0	0.355
5.00	-45.87	-23.16	0.00	-2,223.0	0.00	2,223.00	5,481.72	1,409.17	7,359.87	6,523.98	0.05	-0.09	0.349
10.00	-44.07	-22.77	0.00	-2,107.2	0.00	2,107.19	5,405.89	1,379.01	7,048.27	6,295.01	0.19	-0.18	0.343
15.00	-42.31	-22.39	0.00	-1,993.3	0.00	1,993.32	5,328.25	1,348.85	6,743.40	6,067.87	0.43	-0.27	0.337
20.00	-40.59	-22.01	0.00	-1,881.4	0.00	1,881.36	5,248.79	1,318.69	6,445.27	5,842.69	0.77	-0.36	0.330
25.00	-38.90	-21.64	0.00	-1,771.3	0.00	1,771.29	5,167.52	1,288.54	6,153.88	5,619.62	1.2	-0.46	0.323
30.00	-37.24	-21.27	0.00	-1,663.1	0.00	1,663.08	5,084.43	1,258.38	5,869.23	5,398.79	1.73	-0.55	0.316
35.00	-35.63	-20.96	0.00	-1,556.7	0.00	1,556.74	4,999.53	1,228.22	5,591.33	5,180.35	2.36	-0.65	0.308
38.08	-34.66	-20.76	0.00	-1,492.1	0.00	1,492.12	4,946.27	1,209.63	5,423.31	5,046.90	2.8	-0.71	0.303
40.00	-33.58	-20.49	0.00	-1,452.3	0.00	1,452.32	4,912.81	1,198.07	5,320.16	4,964.44	3.09	-0.74	0.300
45.00	-30.83	-20.06	0.00	-1,349.9	0.00	1,349.89	3,984.08	1,018.04	4,481.47	3,995.91	3.92	-0.84	0.346
50.00	-29.50	-19.65	0.00	-1,249.6	0.00	1,249.58	3,917.74	992.19	4,256.81	3,828.84	4.85	-0.94	0.334
55.00	-28.19	-19.24	0.00	-1,151.3	0.00	1,151.32	3,849.59	966.34	4,037.92	3,663.45	5.89	-1.04	0.322
60.00	-26.91	-18.83	0.00	-1,055.1	0.00	1,055.12	3,779.62	940.49	3,824.81	3,499.88	7.04	-1.15	0.309
65.00	-25.67	-18.42	0.00	-961.0	0.00	961.00	3,707.84	914.64	3,617.48	3,338.26	8.3	-1.25	0.295
69.60	-24.50	-18.04	0.00	-876.2	0.00	876.25	3,640.20	890.86	3,431.83	3,191.43	9.55	-1.35	0.282
70.00	-24.40	-17.83	0.00	-869.0	0.00	869.03	3,634.24	888.79	3,415.92	3,178.75	9.66	-1.36	0.281
75.00	-23.22	-17.45	0.00	-779.9	0.00	779.89	3,558.83	862.94	3,220.14	3,021.47	11.14	-1.46	0.265
79.09	-22.29	-17.23	0.00	-708.5	0.00	708.52	3,495.78	841.79	3,064.26	2,894.55	12.42	-1.54	0.252
80.00	-21.92	-16.98	0.00	-692.9	0.00	692.86	3,481.61	837.09	3,030.14	2,866.56	12.72	-1.56	0.248
85.00	-20.00	-16.54	0.00	-607.9	0.00	607.94	2,718.01	688.00	2,456.17	2,210.32	14.4	-1.65	0.283
90.00	-19.06	-16.12	0.00	-525.3	0.00	525.26	2,660.98	666.46	2,304.80	2,095.66	16.18	-1.74	0.258
95.00	-18.15	-15.75	0.00	-444.7	0.00	444.66	2,602.13	644.92	2,158.24	1,982.55	18.06	-1.84	0.232
99.00	-13.74	-13.58	0.00	-381.7	0.00	381.67	2,553.75	627.69	2,044.45	1,893.26	19.64	-1.92	0.207
100.00	-13.57	-13.35	0.00	-368.1	0.00	368.09	2,541.47	623.38	2,016.49	1,871.11	20.04	-1.93	0.203
105.00	-12.73	-12.98	0.00	-301.4	0.00	301.36	2,479.00	601.84	1,879.55	1,761.51	22.11	-2.02	0.177
109.00	-9.79	-10.60	0.00	-249.5	0.00	249.46	2,427.71	584.61	1,773.47	1,675.23	23.83	-2.08	0.153
110.00	-9.64	-10.37	0.00	-238.9	0.00	238.87	2,414.71	580.30	1,747.43	1,653.86	24.26	-2.09	0.149
115.00	-8.87	-10.00	0.00	-187.0	0.00	187.04	2,348.61	558.76	1,620.13	1,548.32	26.49	-2.16	0.125
119.10	-8.21	-9.77	0.00	-146.0	0.00	146.03	2,290.63	541.09	1,519.33	1,461.90	28.36	-2.2	0.104
119.80	-7.71	-8.50	0.00	-139.2	0.00	139.19	2,277.87	538.08	1,502.45	1,445.57	28.69	-2.21	0.100
120.00	-6.17	-7.15	0.00	-137.5	0.00	137.49	2,274.22	537.22	1,497.64	1,440.92	28.78	-2.21	0.098
120.50	-5.75	-6.79	0.00	-133.9	0.00	133.92	2,265.10	535.06	1,485.65	1,429.33	29.01	-2.22	0.096
120.80	-5.54	-6.64	0.00	-131.9	0.00	131.88	2,259.63	533.77	1,478.49	1,422.40	29.15	-2.22	0.095
120.90	-5.36	-6.40	0.00	-131.2	0.00	131.22	2,257.80	533.34	1,476.10	1,420.10	29.2	-2.22	0.095
125.00	-4.82	-6.10	0.00	-105.0	0.00	104.96	2,183.03	515.68	1,379.96	1,327.13	31.13	-2.26	0.081
129.00	-4.32	-5.90	0.00	-80.6	0.00	80.58	2,110.08	498.44	1,289.29	1,239.47	33.03	-2.29	0.067
129.00	-4.32	-5.90	0.00	-80.6	0.00	80.58	1,628.53	399.66	1,036.05	960.87	33.03	-2.29	0.087
130.00	-4.22	-5.69	0.00	-74.7	0.00	74.68	1,618.66	396.21	1,018.26	946.74	33.51	-2.3	0.082
135.00	-3.73	-5.34	0.00	-46.2	0.00	46.21	1,568.21	378.98	931.62	876.99	35.95	-2.34	0.055
140.00	-2.55	-3.50	0.00	-19.5	0.00	19.52	1,515.94	361.75	848.83	808.86	38.41	-2.36	0.026
141.00	-1.07	-2.24	0.00	-16.0	0.00	16.03	1,505.27	358.30	832.74	795.44	38.9	-2.36	0.021
143.00	-0.84	-1.74	0.00	-11.5	0.00	11.54	1,483.71	351.41	801.01	768.82	39.89	-2.37	0.016
145.00	-0.68	-1.57	0.00	-8.1	0.00	8.06	1,458.45	344.51	769.90	740.76	40.89	-2.37	0.011
148.10	-0.35	-1.15	0.00	-3.2	0.00	3.18	1,413.22	333.83	722.89	695.30	42.43	-2.38	0.005
148.80	-0.25	-0.88	0.00	-2.4	0.00	2.37	1,403.00	331.42	712.48	685.24	42.78	-2.38	0.004
149.00	0.00	-0.86	0.00	-2.2	0.00	2.20	1,400.08	330.73	709.52	682.38	42.88	-2.38	0.003

Load Case: 0.9D + 1.0W 118 mph wind with no ice 23 Iterations
Gust Response Factor: 1.10
Dead load Factor: 0.90
Wind Load Factor: 1.00

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-35.77	-23.55	0.00	-2,326.3	0.00	2,326.26	5,555.74	1,439.32	7,678.22	6,754.63	0	0	0.351
5.00	-34.39	-23.13	0.00	-2,208.5	0.00	2,208.54	5,481.72	1,409.17	7,359.87	6,523.98	0.05	-0.09	0.345
10.00	-33.03	-22.73	0.00	-2,092.9	0.00	2,092.86	5,405.89	1,379.01	7,048.27	6,295.01	0.19	-0.18	0.339
15.00	-31.70	-22.33	0.00	-1,979.2	0.00	1,979.22	5,328.25	1,348.85	6,743.40	6,067.87	0.43	-0.27	0.332
20.00	-30.40	-21.94	0.00	-1,867.6	0.00	1,867.56	5,248.79	1,318.69	6,445.27	5,842.69	0.76	-0.36	0.326
25.00	-29.13	-21.55	0.00	-1,757.9	0.00	1,757.86	5,167.52	1,288.54	6,153.88	5,619.62	1.19	-0.46	0.319
30.00	-27.88	-21.17	0.00	-1,650.1	0.00	1,650.10	5,084.43	1,258.38	5,869.23	5,398.79	1.72	-0.55	0.311
35.00	-26.66	-20.85	0.00	-1,544.3	0.00	1,544.26	4,999.53	1,228.22	5,591.33	5,180.35	2.34	-0.64	0.304
38.08	-25.93	-20.65	0.00	-1,480.0	0.00	1,479.97	4,946.27	1,209.63	5,423.31	5,046.90	2.78	-0.7	0.299
40.00	-25.12	-20.37	0.00	-1,440.4	0.00	1,440.39	4,912.81	1,198.07	5,320.16	4,964.44	3.07	-0.74	0.296
45.00	-23.05	-19.94	0.00	-1,338.6	0.00	1,338.55	3,984.08	1,018.04	4,481.47	3,995.91	3.89	-0.83	0.341
50.00	-22.04	-19.52	0.00	-1,238.9	0.00	1,238.87	3,917.74	992.19	4,256.81	3,828.84	4.82	-0.93	0.330
55.00	-21.06	-19.10	0.00	-1,141.3	0.00	1,141.26	3,849.59	966.34	4,037.92	3,663.45	5.85	-1.03	0.317
60.00	-20.09	-18.68	0.00	-1,045.8	0.00	1,045.76	3,779.62	940.49	3,824.81	3,499.88	6.99	-1.14	0.305
65.00	-19.16	-18.27	0.00	-952.4	0.00	952.37	3,707.84	914.64	3,617.48	3,338.26	8.24	-1.24	0.291
69.60	-18.28	-17.89	0.00	-868.3	0.00	868.32	3,640.20	890.86	3,431.83	3,191.43	9.48	-1.34	0.278
70.00	-18.20	-17.67	0.00	-861.2	0.00	861.16	3,634.24	888.79	3,415.92	3,178.75	9.59	-1.34	0.276
75.00	-17.31	-17.29	0.00	-772.8	0.00	772.79	3,558.83	862.94	3,220.14	3,021.47	11.05	-1.44	0.261
79.09	-16.61	-17.07	0.00	-702.1	0.00	702.07	3,495.78	841.79	3,064.26	2,894.55	12.33	-1.53	0.248
80.00	-16.33	-16.82	0.00	-686.6	0.00	686.55	3,481.61	837.09	3,030.14	2,866.56	12.62	-1.54	0.245
85.00	-14.89	-16.38	0.00	-602.4	0.00	602.44	2,718.01	688.00	2,456.17	2,210.32	14.29	-1.64	0.279
90.00	-14.18	-15.96	0.00	-520.5	0.00	520.53	2,660.98	666.46	2,304.80	2,095.66	16.06	-1.73	0.254
95.00	-13.49	-15.59	0.00	-440.7	0.00	440.72	2,602.13	644.92	2,158.24	1,982.55	17.92	-1.83	0.228
99.00	-10.20	-13.46	0.00	-378.4	0.00	378.36	2,553.75	627.69	2,044.45	1,893.26	19.48	-1.9	0.204
100.00	-10.07	-13.22	0.00	-364.9	0.00	364.90	2,541.47	623.38	2,016.49	1,871.11	19.88	-1.92	0.199
105.00	-9.44	-12.85	0.00	-298.8	0.00	298.79	2,479.00	601.84	1,879.55	1,761.51	21.94	-2	0.174
109.00	-7.25	-10.50	0.00	-247.4	0.00	247.37	2,427.71	584.61	1,773.47	1,675.23	23.64	-2.06	0.151
110.00	-7.14	-10.27	0.00	-236.9	0.00	236.87	2,414.71	580.30	1,747.43	1,653.86	24.07	-2.07	0.146
115.00	-6.56	-9.91	0.00	-185.5	0.00	185.52	2,348.61	558.76	1,620.13	1,548.32	26.28	-2.14	0.123
119.10	-6.07	-9.69	0.00	-144.9	0.00	144.88	2,290.63	541.09	1,519.33	1,461.90	28.14	-2.19	0.102
119.80	-5.70	-8.42	0.00	-138.1	0.00	138.10	2,277.87	538.08	1,502.45	1,445.57	28.46	-2.19	0.098
120.00	-4.57	-7.09	0.00	-136.4	0.00	136.42	2,274.22	537.22	1,497.64	1,440.92	28.55	-2.2	0.097
120.50	-4.25	-6.73	0.00	-132.9	0.00	132.87	2,265.10	535.06	1,485.65	1,429.33	28.78	-2.2	0.095
120.80	-4.09	-6.58	0.00	-130.8	0.00	130.85	2,259.63	533.77	1,478.49	1,422.40	28.92	-2.2	0.094
120.90	-3.96	-6.35	0.00	-130.2	0.00	130.20	2,257.80	533.34	1,476.10	1,420.10	28.97	-2.2	0.094
125.00	-3.56	-6.04	0.00	-104.2	0.00	104.17	2,183.03	515.68	1,379.96	1,327.13	30.88	-2.24	0.080
129.00	-3.18	-5.85	0.00	-80.0	0.00	79.99	2,110.08	498.44	1,289.29	1,239.47	32.77	-2.27	0.066
129.00	-3.18	-5.85	0.00	-80.0	0.00	79.99	1,628.53	399.66	1,036.05	960.87	32.77	-2.27	0.085
130.00	-3.11	-5.65	0.00	-74.1	0.00	74.14	1,618.66	396.21	1,018.26	946.74	33.25	-2.28	0.080
135.00	-2.75	-5.30	0.00	-45.9	0.00	45.91	1,568.21	378.98	931.62	876.99	35.66	-2.32	0.054
140.00	-1.88	-3.47	0.00	-19.4	0.00	19.42	1,515.94	361.75	848.83	808.86	38.1	-2.34	0.025
141.00	-0.78	-2.23	0.00	-16.0	0.00	15.95	1,505.27	358.30	832.74	795.44	38.59	-2.34	0.021
143.00	-0.61	-1.73	0.00	-11.5	0.00	11.49	1,483.71	351.41	801.01	768.82	39.57	-2.35	0.015
145.00	-0.49	-1.57	0.00	-8.0	0.00	8.03	1,458.45	344.51	769.90	740.76	40.56	-2.35	0.011
148.10	-0.25	-1.14	0.00	-3.2	0.00	3.17	1,413.22	333.83	722.89	695.30	42.09	-2.36	0.005
148.80	-0.18	-0.87	0.00	-2.4	0.00	2.37	1,403.00	331.42	712.48	685.24	42.43	-2.36	0.004
149.00	0.00	-0.86	0.00	-2.2	0.00	2.20	1,400.08	330.73	709.52	682.38	42.53	-2.36	0.003

Load Case: 1.2D + 1.0Di + 1.0Wi		50 mph wind with 1" radial ice			22 Iterations
Gust Response Factor:	1.10	Ice Dead Load Factor	1.00		
Dead load Factor:	1.20			Ice Importance Factor	1.00
Wind Load Factor:	1.00				

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-62.48	-6.63	0.00	-651.9	0.00	651.94	5,555.74	1,439.32	7,678.22	6,754.63	0	0	0.108
5.00	-60.39	-6.52	0.00	-618.8	0.00	618.79	5,481.72	1,409.17	7,359.87	6,523.98	0.01	-0.03	0.106
10.00	-58.31	-6.40	0.00	-586.2	0.00	586.22	5,405.89	1,379.01	7,048.27	6,295.01	0.05	-0.05	0.104
15.00	-56.26	-6.29	0.00	-554.2	0.00	554.21	5,328.25	1,348.85	6,743.40	6,067.87	0.12	-0.08	0.102
20.00	-54.23	-6.18	0.00	-522.8	0.00	522.76	5,248.79	1,318.69	6,445.27	5,842.69	0.21	-0.1	0.100
25.00	-52.24	-6.07	0.00	-491.9	0.00	491.87	5,167.52	1,288.54	6,153.88	5,619.62	0.33	-0.13	0.098
30.00	-50.28	-5.96	0.00	-461.5	0.00	461.53	5,084.43	1,258.38	5,869.23	5,398.79	0.48	-0.15	0.095
35.00	-48.37	-5.87	0.00	-431.8	0.00	431.75	4,999.53	1,228.22	5,591.33	5,180.35	0.66	-0.18	0.093
38.08	-47.20	-5.81	0.00	-413.7	0.00	413.66	4,946.27	1,209.63	5,423.31	5,046.90	0.78	-0.2	0.092
40.00	-46.01	-5.73	0.00	-402.5	0.00	402.53	4,912.81	1,198.07	5,320.16	4,964.44	0.86	-0.21	0.090
45.00	-42.97	-5.60	0.00	-373.9	0.00	373.90	3,984.08	1,018.04	4,481.47	3,995.91	1.09	-0.23	0.104
50.00	-41.33	-5.48	0.00	-345.9	0.00	345.91	3,917.74	992.19	4,256.81	3,828.84	1.35	-0.26	0.101
55.00	-39.73	-5.35	0.00	-318.5	0.00	318.54	3,849.59	966.34	4,037.92	3,663.45	1.64	-0.29	0.097
60.00	-38.17	-5.23	0.00	-291.8	0.00	291.77	3,779.62	940.49	3,824.81	3,499.88	1.96	-0.32	0.093
65.00	-36.64	-5.11	0.00	-265.6	0.00	265.64	3,707.84	914.64	3,617.48	3,338.26	2.3	-0.35	0.089
69.60	-35.14	-4.99	0.00	-242.2	0.00	242.15	3,640.20	890.86	3,431.83	3,191.43	2.65	-0.37	0.086
70.00	-35.03	-4.92	0.00	-240.2	0.00	240.16	3,634.24	888.79	3,415.92	3,178.75	2.68	-0.38	0.085
75.00	-33.58	-4.81	0.00	-215.5	0.00	215.54	3,558.83	862.94	3,220.14	3,021.47	3.09	-0.4	0.081
79.09	-32.42	-4.74	0.00	-195.9	0.00	195.87	3,495.78	841.79	3,064.26	2,894.55	3.45	-0.43	0.077
80.00	-32.01	-4.67	0.00	-191.6	0.00	191.56	3,481.61	837.09	3,030.14	2,866.56	3.53	-0.43	0.076
85.00	-29.82	-4.53	0.00	-168.2	0.00	168.23	2,718.01	688.00	2,456.17	2,210.32	4	-0.46	0.087
90.00	-28.62	-4.40	0.00	-145.6	0.00	145.58	2,660.98	666.46	2,304.80	2,095.66	4.49	-0.48	0.080
95.00	-27.45	-4.29	0.00	-123.6	0.00	123.56	2,602.13	644.92	2,158.24	1,982.55	5.01	-0.51	0.073
99.00	-21.39	-3.72	0.00	-106.4	0.00	106.42	2,553.75	627.69	2,044.45	1,893.26	5.45	-0.53	0.065
100.00	-21.17	-3.64	0.00	-102.7	0.00	102.70	2,541.47	623.38	2,016.49	1,871.11	5.56	-0.54	0.063
105.00	-20.07	-3.53	0.00	-84.5	0.00	84.48	2,479.00	601.84	1,879.55	1,761.51	6.14	-0.56	0.056
109.00	-15.50	-2.93	0.00	-70.4	0.00	70.37	2,427.71	584.61	1,773.47	1,675.23	6.61	-0.58	0.048
110.00	-15.30	-2.86	0.00	-67.4	0.00	67.44	2,414.71	580.30	1,747.43	1,653.86	6.73	-0.58	0.047
115.00	-14.29	-2.74	0.00	-53.1	0.00	53.14	2,348.61	558.76	1,620.13	1,548.32	7.35	-0.6	0.040
119.10	-13.41	-2.67	0.00	-41.9	0.00	41.88	2,290.63	541.09	1,519.33	1,461.90	7.87	-0.61	0.035
119.80	-12.20	-2.40	0.00	-40.0	0.00	40.01	2,277.87	538.08	1,502.45	1,445.57	7.96	-0.61	0.033
120.00	-9.80	-2.02	0.00	-39.5	0.00	39.53	2,274.22	537.22	1,497.64	1,440.92	7.99	-0.62	0.032
120.50	-9.14	-1.93	0.00	-38.5	0.00	38.52	2,265.10	535.06	1,485.65	1,429.33	8.05	-0.62	0.031
120.80	-8.80	-1.89	0.00	-37.9	0.00	37.94	2,259.63	533.77	1,478.49	1,422.40	8.09	-0.62	0.031
120.90	-8.54	-1.83	0.00	-37.8	0.00	37.75	2,257.80	533.34	1,476.10	1,420.10	8.1	-0.62	0.030
125.00	-7.82	-1.73	0.00	-30.3	0.00	30.27	2,183.03	515.68	1,379.96	1,327.13	8.64	-0.63	0.026
129.00	-7.13	-1.66	0.00	-23.4	0.00	23.35	2,110.08	498.44	1,289.29	1,239.47	9.17	-0.64	0.022
129.00	-7.13	-1.66	0.00	-23.4	0.00	23.35	1,628.53	399.66	1,036.05	960.87	9.17	-0.64	0.029
130.00	-6.99	-1.60	0.00	-21.7	0.00	21.69	1,618.66	396.21	1,018.26	946.74	9.3	-0.64	0.027
135.00	-6.28	-1.48	0.00	-13.7	0.00	13.70	1,568.21	378.98	931.62	876.99	9.98	-0.65	0.020
140.00	-4.02	-1.05	0.00	-6.3	0.00	6.28	1,515.94	361.75	848.83	808.86	10.67	-0.66	0.010
141.00	-2.02	-0.71	0.00	-5.2	0.00	5.23	1,505.27	358.30	832.74	795.44	10.8	-0.66	0.008
143.00	-1.60	-0.58	0.00	-3.8	0.00	3.81	1,483.71	351.41	801.01	768.82	11.08	-0.66	0.006
145.00	-1.35	-0.52	0.00	-2.7	0.00	2.66	1,458.45	344.51	769.90	740.76	11.36	-0.66	0.005
148.10	-0.80	-0.38	0.00	-1.0	0.00	1.03	1,413.22	333.83	722.89	695.30	11.79	-0.66	0.002
148.80	-0.57	-0.28	0.00	-0.8	0.00	0.76	1,403.00	331.42	712.48	685.24	11.89	-0.66	0.002
149.00	0.00	-0.28	0.00	-0.7	0.00	0.71	1,400.08	330.73	709.52	682.38	11.91	-0.66	0.001

Load Case: 1.0D + 1.0W 60 mph Wind with No Ice 22 Iterations
Gust Response Factor: 1.10
Dead load Factor: 1.00
Wind Load Factor: 1.00

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-39.77	-5.45	0.00	-539.3	0.00	539.29	5,555.74	1,439.32	7,678.22	6,754.63	0	0	0.087
5.00	-38.27	-5.35	0.00	-512.1	0.00	512.06	5,481.72	1,409.17	7,359.87	6,523.98	0.01	-0.02	0.085
10.00	-36.80	-5.26	0.00	-485.3	0.00	485.29	5,405.89	1,379.01	7,048.27	6,295.01	0.04	-0.04	0.084
15.00	-35.36	-5.17	0.00	-459.0	0.00	458.99	5,328.25	1,348.85	6,743.40	6,067.87	0.1	-0.06	0.082
20.00	-33.94	-5.08	0.00	-433.1	0.00	433.14	5,248.79	1,318.69	6,445.27	5,842.69	0.18	-0.08	0.081
25.00	-32.56	-4.99	0.00	-407.7	0.00	407.74	5,167.52	1,288.54	6,153.88	5,619.62	0.28	-0.11	0.079
30.00	-31.21	-4.90	0.00	-382.8	0.00	382.78	5,084.43	1,258.38	5,869.23	5,398.79	0.4	-0.13	0.077
35.00	-29.88	-4.83	0.00	-358.3	0.00	358.26	4,999.53	1,228.22	5,591.33	5,180.35	0.54	-0.15	0.075
38.08	-29.08	-4.79	0.00	-343.4	0.00	343.36	4,946.27	1,209.63	5,423.31	5,046.90	0.64	-0.16	0.074
40.00	-28.20	-4.72	0.00	-334.2	0.00	334.19	4,912.81	1,198.07	5,320.16	4,964.44	0.71	-0.17	0.073
45.00	-25.94	-4.62	0.00	-310.6	0.00	310.59	3,984.08	1,018.04	4,481.47	3,995.91	0.9	-0.19	0.084
50.00	-24.84	-4.53	0.00	-287.5	0.00	287.48	3,917.74	992.19	4,256.81	3,828.84	1.12	-0.22	0.081
55.00	-23.77	-4.43	0.00	-264.8	0.00	264.85	3,849.59	966.34	4,037.92	3,663.45	1.36	-0.24	0.078
60.00	-22.73	-4.33	0.00	-242.7	0.00	242.70	3,779.62	940.49	3,824.81	3,499.88	1.62	-0.26	0.075
65.00	-21.71	-4.24	0.00	-221.0	0.00	221.04	3,707.84	914.64	3,617.48	3,338.26	1.91	-0.29	0.072
69.60	-20.75	-4.15	0.00	-201.5	0.00	201.54	3,640.20	890.86	3,431.83	3,191.43	2.2	-0.31	0.069
70.00	-20.67	-4.10	0.00	-199.9	0.00	199.88	3,634.24	888.79	3,415.92	3,178.75	2.22	-0.31	0.069
75.00	-19.70	-4.01	0.00	-179.4	0.00	179.38	3,558.83	862.94	3,220.14	3,021.47	2.56	-0.34	0.065
79.09	-18.93	-3.96	0.00	-163.0	0.00	162.97	3,495.78	841.79	3,064.26	2,894.55	2.86	-0.35	0.062
80.00	-18.64	-3.90	0.00	-159.4	0.00	159.36	3,481.61	837.09	3,030.14	2,866.56	2.93	-0.36	0.061
85.00	-17.04	-3.80	0.00	-139.8	0.00	139.84	2,718.01	688.00	2,456.17	2,210.32	3.32	-0.38	0.070
90.00	-16.27	-3.71	0.00	-120.8	0.00	120.83	2,660.98	666.46	2,304.80	2,095.66	3.72	-0.4	0.064
95.00	-15.52	-3.62	0.00	-102.3	0.00	102.30	2,602.13	644.92	2,158.24	1,982.55	4.16	-0.42	0.058
99.00	-11.80	-3.12	0.00	-87.8	0.00	87.82	2,553.75	627.69	2,044.45	1,893.26	4.52	-0.44	0.051
100.00	-11.66	-3.07	0.00	-84.7	0.00	84.70	2,541.47	623.38	2,016.49	1,871.11	4.61	-0.44	0.050
105.00	-10.96	-2.98	0.00	-69.4	0.00	69.35	2,479.00	601.84	1,879.55	1,761.51	5.09	-0.46	0.044
109.00	-8.46	-2.44	0.00	-57.4	0.00	57.41	2,427.71	584.61	1,773.47	1,675.23	5.48	-0.48	0.038
110.00	-8.32	-2.38	0.00	-55.0	0.00	54.98	2,414.71	580.30	1,747.43	1,653.86	5.59	-0.48	0.037
115.00	-7.68	-2.30	0.00	-43.0	0.00	43.05	2,348.61	558.76	1,620.13	1,548.32	6.1	-0.5	0.031
119.10	-7.13	-2.25	0.00	-33.6	0.00	33.62	2,290.63	541.09	1,519.33	1,461.90	6.53	-0.51	0.026
119.80	-6.68	-1.95	0.00	-32.0	0.00	32.05	2,277.87	538.08	1,502.45	1,445.57	6.6	-0.51	0.025
120.00	-5.36	-1.65	0.00	-31.7	0.00	31.66	2,274.22	537.22	1,497.64	1,440.92	6.62	-0.51	0.024
120.50	-5.00	-1.56	0.00	-30.8	0.00	30.83	2,265.10	535.06	1,485.65	1,429.33	6.68	-0.51	0.024
120.80	-4.81	-1.53	0.00	-30.4	0.00	30.37	2,259.63	533.77	1,478.49	1,422.40	6.71	-0.51	0.023
120.90	-4.66	-1.47	0.00	-30.2	0.00	30.21	2,257.80	533.34	1,476.10	1,420.10	6.72	-0.51	0.023
125.00	-4.21	-1.40	0.00	-24.2	0.00	24.17	2,183.03	515.68	1,379.96	1,327.13	7.16	-0.52	0.020
129.00	-3.78	-1.36	0.00	-18.6	0.00	18.56	2,110.08	498.44	1,289.29	1,239.47	7.6	-0.53	0.017
129.00	-3.78	-1.36	0.00	-18.6	0.00	18.56	1,628.53	399.66	1,036.05	960.87	7.6	-0.53	0.022
130.00	-3.70	-1.31	0.00	-17.2	0.00	17.20	1,618.66	396.21	1,018.26	946.74	7.71	-0.53	0.020
135.00	-3.28	-1.23	0.00	-10.6	0.00	10.65	1,568.21	378.98	931.62	876.99	8.27	-0.54	0.014
140.00	-2.24	-0.81	0.00	-4.5	0.00	4.50	1,515.94	361.75	848.83	808.86	8.84	-0.54	0.007
141.00	-0.96	-0.52	0.00	-3.7	0.00	3.70	1,505.27	358.30	832.74	795.44	8.95	-0.54	0.005
143.00	-0.76	-0.40	0.00	-2.7	0.00	2.66	1,483.71	351.41	801.01	768.82	9.18	-0.55	0.004
145.00	-0.62	-0.36	0.00	-1.9	0.00	1.86	1,458.45	344.51	769.90	740.76	9.41	-0.55	0.003
148.10	-0.33	-0.27	0.00	-0.7	0.00	0.73	1,413.22	333.83	722.89	695.30	9.77	-0.55	0.001
148.80	-0.24	-0.20	0.00	-0.6	0.00	0.55	1,403.00	331.42	712.48	685.24	9.85	-0.55	0.001
149.00	0.00	-0.20	0.00	-0.5	0.00	0.51	1,400.08	330.73	709.52	682.38	9.87	-0.55	0.001

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

(Based on ASCE7-16 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period (S_S):	0.212
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.054
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	1.000
Site Coefficient F_a:	1.600
Site Coefficient F_v:	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.226
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.086
Seismic Response Coefficient (C_s):	0.035
Upper Limit C_S:	0.035
Lower Limit C_S:	0.030
Period based on Rayleigh Method (sec):	1.650
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	1.570
Total Unfactored Dead Load:	39.770 k
Seismic Base Shear (E):	1.390 k

1.2D + 1.0Ev + 1.0Eh **Seismic**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
45	148.9	13	34	0.001	1	16
44	148.45	45	119	0.003	4	56
43	146.55	213	548	0.014	19	265
42	144	141	353	0.009	13	175
41	142	146	358	0.009	13	182
40	140.5	74	178	0.005	6	92
39	137.5	400	930	0.024	33	498
38	132.5	416	914	0.023	33	519
37	129.5	85	181	0.005	6	106
36	127	426	875	0.022	31	530
35	122.95	450	879	0.022	31	561
34	120.85	11	21	0.000	1	14
33	120.65	34	64	0.002	2	42
32	120.25	56	106	0.003	4	70
31	119.9	24	46	0.001	2	30
30	119.45	86	160	0.004	6	107
29	117.05	511	923	0.024	33	636
28	112.5	642	1,089	0.028	39	799
27	109.5	131	213	0.006	8	163
26	107	545	854	0.022	30	678
25	102.5	700	1,026	0.026	37	871
24	99.5	142	199	0.005	7	177
23	97	586	787	0.020	28	730
22	92.5	751	937	0.024	33	935
21	87.5	772	882	0.023	31	961
20	82.5	1,592	1,658	0.042	59	1,982
19	79.5454	294	289	0.007	10	367
18	77.0454	771	721	0.018	26	960
17	72.5	965	820	0.021	29	1,201
16	69.8	78	63	0.002	2	97
15	67.3	913	690	0.018	25	1,137
14	62.5	1,016	684	0.018	24	1,266
13	57.5	1,041	614	0.016	22	1,297
12	52.5	1,066	545	0.014	19	1,328

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
11	47.5	1,092	477	0.012	17	1,359
10	42.5	2,263	829	0.021	30	2,819
9	39.0417	882	283	0.007	10	1,098
8	36.5417	801	231	0.006	8	997
7	32.5	1,322	318	0.008	11	1,647
6	27.5	1,352	250	0.006	9	1,683
5	22.5	1,381	186	0.005	7	1,720
4	17.5	1,410	128	0.003	5	1,756
3	12.5	1,439	77	0.002	3	1,792
2	7.5	1,469	35	0.001	1	1,829
1	2.5	1,498	6	0.000	0	1,865
Generic 16' Omni	149	165	436	0.011	16	205
Generic 16' Omni	69.6	55	44	0.001	2	68
Decibel DS1F06F36U3D	149	60	158	0.004	6	75
Generic 8' Dipole	148.8	50	132	0.003	5	62
Andrew DB809KE-XT	148.1	75	196	0.005	7	93
Telewave ANT770F2	143	8	20	0.000	1	10
Radio Waves HPD2-4.7NS	143	54	134	0.003	5	67
T-Arm with Platform	141	1,200	2,906	0.074	103	1,494
Ericsson AIR 21, 1.3 M, B2A B4P	140	249	596	0.015	21	310
Ericsson AIR 21, 1.3M, B4A B2P	140	244	585	0.015	21	304
Andrew LNX-6515DS-VTM	140	154	369	0.009	13	192
Ericsson RRUS 4426 B66	120.9	145	276	0.007	10	181
Ericsson RRUS 11 B12	120.8	152	289	0.007	10	189
Ericsson AIR 6449 B41	120.5	305	576	0.015	21	380
Commscope Air 32 Dual Band	120	397	745	0.019	27	494
Generic Round Sector Frame	120	900	1,691	0.043	60	1,121
Commscope FFVV-65C-R3-V1	119.8	374	700	0.018	25	465
Ericsson KRY 112 71	119.1	40	74	0.002	3	49
Samsung RF4440d-13A	109	211	341	0.009	12	263
Samsung RF4439d-25A	109	224	362	0.009	13	279
Raycap RxxDC-3315-PF-48	109	43	69	0.002	2	53
Samsung MT6407-77A	109	245	395	0.010	14	305
Commscope SBNHH-1D65B	109	304	491	0.013	17	379
Round T-Arm	109	938	1,514	0.039	54	1,167
Raycap RDIDC-9181-PF-48	99	22	30	0.001	1	27
Fujitsu TA08025-B605	99	225	312	0.008	11	280
Fujitsu TA08025-B604	99	192	266	0.007	9	239
JMA Wireless MX08FRO665-21	99	194	269	0.007	10	241
Generic Round Platform with Handrails	99	2,500	3,469	0.089	123	3,113
		39,769	39,021	1.000	1,389	49,522

0.9D - 1.0Ev + 1.0Eh **Seismic (Reduced DL)**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
45	148.9	13	34	0.001	1	11
44	148.45	45	119	0.003	4	39
43	146.55	213	548	0.014	19	182
42	144	141	353	0.009	13	120
41	142	146	358	0.009	13	125
40	140.5	74	178	0.005	6	63
39	137.5	400	930	0.024	33	342
38	132.5	416	914	0.023	33	356
37	129.5	85	181	0.005	6	73
36	127	426	875	0.022	31	364
35	122.95	450	879	0.022	31	385
34	120.85	11	21	0.000	1	10
33	120.65	34	64	0.002	2	29
32	120.25	56	106	0.003	4	48
31	119.9	24	46	0.001	2	21
30	119.45	86	160	0.004	6	73
29	117.05	511	923	0.024	33	437

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
28	112.5	642	1,089	0.028	39	549
27	109.5	131	213	0.006	8	112
26	107	545	854	0.022	30	466
25	102.5	700	1,026	0.026	37	598
24	99.5	142	199	0.005	7	122
23	97	586	787	0.020	28	501
22	92.5	751	937	0.024	33	642
21	87.5	772	882	0.023	31	660
20	82.5	1,592	1,658	0.042	59	1,361
19	79.5454	294	289	0.007	10	252
18	77.0454	771	721	0.018	26	659
17	72.5	965	820	0.021	29	825
16	69.8	78	63	0.002	2	67
15	67.3	913	690	0.018	25	780
14	62.5	1,016	684	0.018	24	869
13	57.5	1,041	614	0.016	22	890
12	52.5	1,066	545	0.014	19	912
11	47.5	1,092	477	0.012	17	933
10	42.5	2,263	829	0.021	30	1,935
9	39.0417	882	283	0.007	10	754
8	36.5417	801	231	0.006	8	685
7	32.5	1,322	318	0.008	11	1,130
6	27.5	1,352	250	0.006	9	1,155
5	22.5	1,381	186	0.005	7	1,180
4	17.5	1,410	128	0.003	5	1,205
3	12.5	1,439	77	0.002	3	1,230
2	7.5	1,469	35	0.001	1	1,255
1	2.5	1,498	6	0.000	0	1,280
Generic 16' Omni	149	165	436	0.011	16	141
Generic 16' Omni	69.6	55	44	0.001	2	47
Decibel DS1F06F36U3D	149	60	158	0.004	6	51
Generic 8' Dipole	148.8	50	132	0.003	5	43
Andrew DB809KE-XT	148.1	75	196	0.005	7	64
Telewave ANT770F2	143	8	20	0.000	1	7
Radio Waves HPD2-4.7NS	143	54	134	0.003	5	46
T-Arm with Platform	141	1,200	2,906	0.074	103	1,026
Ericsson AIR 21, 1.3 M, B2A B4P	140	249	596	0.015	21	213
Ericsson AIR 21, 1.3M, B4A B2P	140	244	585	0.015	21	209
Andrew LNX-6515DS-VTM	140	154	369	0.009	13	132
Ericsson RRUS 4426 B66	120.9	145	276	0.007	10	124
Ericsson RRUS 11 B12	120.8	152	289	0.007	10	130
Ericsson AIR 6449 B41	120.5	305	576	0.015	21	261
Commscope Air 32 Dual Band	120	397	745	0.019	27	339
Generic Round Sector Frame	120	900	1,691	0.043	60	769
Commscope FFVV-65C-R3-V1	119.8	374	700	0.018	25	320
Ericsson KRY 112 71	119.1	40	74	0.002	3	34
Samsung RF4440d-13A	109	211	341	0.009	12	180
Samsung RF4439d-25A	109	224	362	0.009	13	192
Raycap RxxDC-3315-PF-48	109	43	69	0.002	2	37
Samsung MT6407-77A	109	245	395	0.010	14	209
Commscope SBNHH-1D65B	109	304	491	0.013	17	260
Round T-Arm	109	938	1,514	0.039	54	801
Raycap RDIDC-9181-PF-48	99	22	30	0.001	1	19
Fujitsu TA08025-B605	99	225	312	0.008	11	192
Fujitsu TA08025-B604	99	192	266	0.007	9	164
JMA Wireless MX08FRO665-21	99	194	269	0.007	10	165
Generic Round Platform with Handrails	99	2,500	3,469	0.089	123	2,137
		39,769	39,021	1.000	1,389	33,994

1.2D + 1.0Ev + 1.0Eh **Seismic**

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-47.66	-1.39	0.00	-147.77	0.00	147.77	5,555.74	1,439.32	7,678	6,754.63	0.00	0.00	0.03
5.00	-45.83	-1.39	0.00	-140.82	0.00	140.82	5,481.72	1,409.17	7,360	6,523.98	0.00	-0.01	0.03
10.00	-44.03	-1.40	0.00	-133.85	0.00	133.85	5,405.89	1,379.01	7,048	6,295.01	0.01	-0.01	0.03
15.00	-42.28	-1.39	0.00	-126.87	0.00	126.87	5,328.25	1,348.85	6,743	6,067.87	0.03	-0.02	0.03
20.00	-40.56	-1.39	0.00	-119.90	0.00	119.90	5,248.79	1,318.69	6,445	5,842.69	0.05	-0.02	0.03
25.00	-38.88	-1.39	0.00	-112.94	0.00	112.94	5,167.52	1,288.54	6,154	5,619.62	0.08	-0.03	0.03
30.00	-37.23	-1.38	0.00	-106.02	0.00	106.02	5,084.43	1,258.38	5,869	5,398.79	0.11	-0.04	0.03
35.00	-36.23	-1.37	0.00	-99.13	0.00	99.13	4,999.53	1,228.22	5,591	5,180.35	0.15	-0.04	0.03
38.08	-35.13	-1.36	0.00	-94.90	0.00	94.90	4,946.27	1,209.63	5,423	5,046.90	0.18	-0.04	0.03
40.00	-32.31	-1.33	0.00	-92.29	0.00	92.29	4,912.81	1,198.07	5,320	4,964.44	0.20	-0.05	0.03
45.00	-30.95	-1.32	0.00	-85.62	0.00	85.62	3,984.08	1,018.04	4,481	3,995.91	0.25	-0.05	0.03
50.00	-29.63	-1.30	0.00	-79.03	0.00	79.03	3,917.74	992.19	4,257	3,828.84	0.31	-0.06	0.03
55.00	-28.33	-1.28	0.00	-72.53	0.00	72.53	3,849.59	966.34	4,038	3,663.45	0.37	-0.07	0.03
60.00	-27.06	-1.26	0.00	-66.12	0.00	66.12	3,779.62	940.49	3,825	3,499.88	0.45	-0.07	0.03
65.00	-25.93	-1.24	0.00	-59.83	0.00	59.83	3,707.84	914.64	3,617	3,338.26	0.53	-0.08	0.03
69.60	-25.76	-1.23	0.00	-54.15	0.00	54.15	3,640.20	890.86	3,432	3,191.43	0.61	-0.09	0.02
70.00	-24.56	-1.20	0.00	-53.66	0.00	53.66	3,634.24	888.79	3,416	3,178.75	0.61	-0.09	0.02
75.00	-23.60	-1.18	0.00	-47.64	0.00	47.64	3,558.83	862.94	3,220	3,021.47	0.71	-0.09	0.02
79.09	-23.23	-1.17	0.00	-42.82	0.00	42.82	3,495.78	841.79	3,064	2,894.55	0.79	-0.10	0.02
80.00	-21.25	-1.11	0.00	-41.76	0.00	41.76	3,481.61	837.09	3,030	2,866.56	0.81	-0.10	0.02
85.00	-20.29	-1.08	0.00	-36.22	0.00	36.22	2,718.01	688.00	2,456	2,210.32	0.91	-0.10	0.02
90.00	-19.35	-1.04	0.00	-30.84	0.00	30.84	2,660.98	666.46	2,305	2,095.66	1.02	-0.11	0.02
95.00	-18.63	-1.02	0.00	-25.63	0.00	25.63	2,602.13	644.92	2,158	1,982.55	1.14	-0.11	0.02
99.00	-14.55	-0.85	0.00	-21.57	0.00	21.57	2,553.75	627.69	2,044	1,893.26	1.24	-0.12	0.02
100.00	-13.68	-0.81	0.00	-20.72	0.00	20.72	2,541.47	623.38	2,016	1,871.11	1.26	-0.12	0.02
105.00	-13.00	-0.78	0.00	-16.68	0.00	16.68	2,479.00	601.84	1,880	1,761.51	1.39	-0.12	0.02
109.00	-10.39	-0.65	0.00	-13.57	0.00	13.57	2,427.71	584.61	1,773	1,675.23	1.50	-0.13	0.01
110.00	-9.59	-0.61	0.00	-12.92	0.00	12.92	2,414.71	580.30	1,747	1,653.86	1.53	-0.13	0.01
115.00	-8.95	-0.58	0.00	-9.87	0.00	9.87	2,348.61	558.76	1,620	1,548.32	1.66	-0.13	0.01
119.10	-8.80	-0.57	0.00	-7.50	0.00	7.50	2,290.63	541.09	1,519	1,461.90	1.78	-0.13	0.01
119.80	-8.30	-0.54	0.00	-7.10	0.00	7.10	2,277.87	538.08	1,502	1,445.57	1.80	-0.14	0.01
120.00	-6.62	-0.45	0.00	-6.99	0.00	6.99	2,274.22	537.22	1,498	1,440.92	1.80	-0.14	0.01
120.50	-6.20	-0.42	0.00	-6.77	0.00	6.77	2,265.10	535.06	1,486	1,429.33	1.82	-0.14	0.01
120.80	-5.99	-0.41	0.00	-6.64	0.00	6.64	2,259.63	533.77	1,478	1,422.40	1.83	-0.14	0.01
120.90	-5.25	-0.37	0.00	-6.60	0.00	6.60	2,257.80	533.34	1,476	1,420.10	1.83	-0.14	0.01
125.00	-4.72	-0.34	0.00	-5.09	0.00	5.09	2,183.03	515.68	1,380	1,327.13	1.95	-0.14	0.01
129.00	-4.62	-0.33	0.00	-3.74	0.00	3.74	2,110.08	498.44	1,289	1,239.47	2.06	-0.14	0.01
129.00	-4.62	-0.33	0.00	-3.74	0.00	3.74	1,628.53	399.66	1,036	960.87	2.06	-0.14	0.01
130.00	-4.10	-0.30	0.00	-3.41	0.00	3.41	1,618.66	396.21	1,018	946.74	2.09	-0.14	0.01
135.00	-3.60	-0.26	0.00	-1.93	0.00	1.93	1,568.21	378.98	932	876.99	2.24	-0.14	0.00
140.00	-2.70	-0.20	0.00	-0.62	0.00	0.62	1,515.94	361.75	849	808.86	2.39	-0.14	0.00
141.00	-1.03	-0.08	0.00	-0.42	0.00	0.42	1,505.27	358.30	833	795.44	2.42	-0.14	0.00
143.00	-0.77	-0.06	0.00	-0.27	0.00	0.27	1,483.71	351.41	801	768.82	2.48	-0.14	0.00
145.00	-0.51	-0.04	0.00	-0.15	0.00	0.15	1,458.45	344.51	770	740.76	2.54	-0.14	0.00
148.10	-0.36	-0.03	0.00	-0.02	0.00	0.02	1,413.22	333.83	723	695.30	2.63	-0.14	0.00
148.80	-0.28	-0.02	0.00	0.00	0.00	0.00	1,403.00	331.42	712	685.24	2.65	-0.14	0.00
149.00	0.00	-0.02	0.00	0.00	0.00	0.00	1,400.08	330.73	710	682.38	2.66	-0.14	0.00

0.9D - 1.0Ev + 1.0Eh **Seismic (Reduced DL)**

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-32.71	-1.39	0.00	-146.65	0.00	146.65	5,555.74	1,439.32	7,678	6,754.63	0.00	0.00	0.03
5.00	-31.46	-1.39	0.00	-139.70	0.00	139.70	5,481.72	1,409.17	7,360	6,523.98	0.00	-0.01	0.03
10.00	-30.23	-1.39	0.00	-132.75	0.00	132.75	5,405.89	1,379.01	7,048	6,295.01	0.01	-0.01	0.03
15.00	-29.02	-1.39	0.00	-125.79	0.00	125.79	5,328.25	1,348.85	6,743	6,067.87	0.03	-0.02	0.03
20.00	-27.84	-1.39	0.00	-118.84	0.00	118.84	5,248.79	1,318.69	6,445	5,842.69	0.05	-0.02	0.03
25.00	-26.69	-1.38	0.00	-111.91	0.00	111.91	5,167.52	1,288.54	6,154	5,619.62	0.08	-0.03	0.03
30.00	-25.55	-1.37	0.00	-105.02	0.00	105.02	5,084.43	1,258.38	5,869	5,398.79	0.11	-0.03	0.02
35.00	-24.87	-1.36	0.00	-98.17	0.00	98.17	4,999.53	1,228.22	5,591	5,180.35	0.15	-0.04	0.02
38.08	-24.12	-1.35	0.00	-93.97	0.00	93.97	4,946.27	1,209.63	5,423	5,046.90	0.18	-0.04	0.02
40.00	-22.18	-1.32	0.00	-91.37	0.00	91.37	4,912.81	1,198.07	5,320	4,964.44	0.19	-0.05	0.02
45.00	-21.25	-1.31	0.00	-84.75	0.00	84.75	3,984.08	1,018.04	4,481	3,995.91	0.25	-0.05	0.03
50.00	-20.34	-1.29	0.00	-78.21	0.00	78.21	3,917.74	992.19	4,257	3,828.84	0.31	-0.06	0.03
55.00	-19.45	-1.27	0.00	-71.76	0.00	71.76	3,849.59	966.34	4,038	3,663.45	0.37	-0.07	0.03
60.00	-18.58	-1.25	0.00	-65.41	0.00	65.41	3,779.62	940.49	3,825	3,499.88	0.44	-0.07	0.02
65.00	-17.80	-1.22	0.00	-59.17	0.00	59.17	3,707.84	914.64	3,617	3,338.26	0.52	-0.08	0.02

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
69.60	-17.68	-1.22	0.00	-53.55	0.00	53.55	3,640.20	890.86	3,432	3,191.43	0.60	-0.08	0.02
70.00	-16.86	-1.19	0.00	-53.06	0.00	53.06	3,634.24	888.79	3,416	3,178.75	0.61	-0.08	0.02
75.00	-16.20	-1.17	0.00	-47.11	0.00	47.11	3,558.83	862.94	3,220	3,021.47	0.70	-0.09	0.02
79.09	-15.95	-1.16	0.00	-42.34	0.00	42.34	3,495.78	841.79	3,064	2,894.55	0.78	-0.10	0.02
80.00	-14.59	-1.10	0.00	-41.29	0.00	41.29	3,481.61	837.09	3,030	2,866.56	0.80	-0.10	0.02
85.00	-13.93	-1.06	0.00	-35.81	0.00	35.81	2,718.01	688.00	2,456	2,210.32	0.90	-0.10	0.02
90.00	-13.29	-1.03	0.00	-30.49	0.00	30.49	2,660.98	666.46	2,305	2,095.66	1.01	-0.11	0.02
95.00	-12.78	-1.00	0.00	-25.33	0.00	25.33	2,602.13	644.92	2,158	1,982.55	1.13	-0.11	0.02
99.00	-9.99	-0.84	0.00	-21.32	0.00	21.32	2,553.75	627.69	2,044	1,893.26	1.23	-0.12	0.02
100.00	-9.39	-0.80	0.00	-20.49	0.00	20.49	2,541.47	623.38	2,016	1,871.11	1.25	-0.12	0.02
105.00	-8.92	-0.77	0.00	-16.49	0.00	16.49	2,479.00	601.84	1,880	1,761.51	1.38	-0.12	0.01
109.00	-7.13	-0.64	0.00	-13.42	0.00	13.42	2,427.71	584.61	1,773	1,675.23	1.48	-0.13	0.01
110.00	-6.58	-0.60	0.00	-12.78	0.00	12.78	2,414.71	580.30	1,747	1,653.86	1.51	-0.13	0.01
115.00	-6.15	-0.57	0.00	-9.76	0.00	9.76	2,348.61	558.76	1,620	1,548.32	1.65	-0.13	0.01
119.10	-6.04	-0.56	0.00	-7.42	0.00	7.42	2,290.63	541.09	1,519	1,461.90	1.76	-0.13	0.01
119.80	-5.70	-0.53	0.00	-7.02	0.00	7.02	2,277.87	538.08	1,502	1,445.57	1.78	-0.13	0.01
120.00	-4.54	-0.44	0.00	-6.92	0.00	6.92	2,274.22	537.22	1,498	1,440.92	1.79	-0.13	0.01
120.50	-4.25	-0.42	0.00	-6.70	0.00	6.70	2,265.10	535.06	1,486	1,429.33	1.80	-0.13	0.01
120.80	-4.11	-0.41	0.00	-6.57	0.00	6.57	2,259.63	533.77	1,478	1,422.40	1.81	-0.13	0.01
120.90	-3.60	-0.36	0.00	-6.53	0.00	6.53	2,257.80	533.34	1,476	1,420.10	1.81	-0.13	0.01
125.00	-3.24	-0.33	0.00	-5.03	0.00	5.03	2,183.03	515.68	1,380	1,327.13	1.93	-0.14	0.01
129.00	-3.17	-0.33	0.00	-3.70	0.00	3.70	2,110.08	498.44	1,289	1,239.47	2.04	-0.14	0.00
129.00	-3.17	-0.33	0.00	-3.70	0.00	3.70	1,628.53	399.66	1,036	960.87	2.04	-0.14	0.01
130.00	-2.81	-0.29	0.00	-3.38	0.00	3.38	1,618.66	396.21	1,018	946.74	2.07	-0.14	0.01
135.00	-2.47	-0.26	0.00	-1.91	0.00	1.91	1,568.21	378.98	932	876.99	2.22	-0.14	0.00
140.00	-1.85	-0.20	0.00	-0.61	0.00	0.61	1,515.94	361.75	849	808.86	2.36	-0.14	0.00
141.00	-0.70	-0.08	0.00	-0.42	0.00	0.42	1,505.27	358.30	833	795.44	2.39	-0.14	0.00
143.00	-0.53	-0.06	0.00	-0.26	0.00	0.26	1,483.71	351.41	801	768.82	2.45	-0.14	0.00
145.00	-0.35	-0.04	0.00	-0.14	0.00	0.14	1,458.45	344.51	770	740.76	2.51	-0.14	0.00
148.10	-0.25	-0.03	0.00	-0.02	0.00	0.02	1,413.22	333.83	723	695.30	2.60	-0.14	0.00
148.80	-0.19	-0.02	0.00	0.00	0.00	0.00	1,403.00	331.42	712	685.24	2.62	-0.14	0.00
149.00	0.00	-0.02	0.00	0.00	0.00	0.00	1,400.08	330.73	710	682.38	2.63	-0.14	0.00

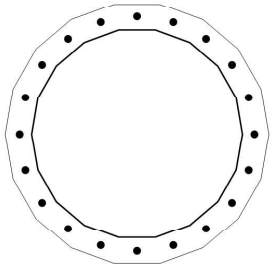
ANALYSIS SUMMARY

	Reactions						Max Usage	
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W	23.56	0.00	47.70	0.00	0.00	2340.77	0.00	0.36
0.9D + 1.0W	23.55	0.00	35.77	0.00	0.00	2326.26	0.00	0.35
1.2D + 1.0Di + 1.0Wi	6.63	0.00	62.48	0.00	0.00	651.94	0.00	0.11
1.2D + 1.0Ev + 1.0Eh	1.40	0.00	47.66	0.00	0.00	147.77	0.00	0.03
0.9D - 1.0Ev + 1.0Eh	1.39	0.00	32.71	0.00	0.00	146.65	0.00	0.03
1.0D + 1.0W	5.45	0.00	39.77	0.00	0.00	539.29	0.00	0.09

BASE PLATE ANALYSIS @ 0 FT

PLATE PARAMETERS (ID# 14571)

Diameter:	74.04	in
Shape:	18	
Thickness:	3.25	in
Grade:	A572-50	
Yield Strength:	50	ksi
Tensile Strength:	65	ksi
Rod Detail Type:	d	
Clear Distance	3	in
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Elastic	
Neutral Axis:	326	°



ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 14895]	Radial	20	2.25	66.92	A615-75	75	100	-	-

ANCHOR ROD GEOMETRY AND APPLIED LOADS --- ORIGINAL (20) 2.25"ø [ID 14895]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in⁴)	Axial Load (k)	Shear Load (k)
1	0.314	31.82	10.34	25.333	2085.010	71.20	1.14
2	0.628	27.07	19.67	30.209	2964.582	84.45	0.64
3	0.942	19.67	27.07	32.128	3353.114	89.66	0.06
4	1.257	10.34	31.82	30.902	3102.199	86.33	0.51
5	1.571	0.00	33.46	26.651	2307.679	74.79	1.04
6	1.885	-10.34	31.82	19.792	1273.032	56.15	1.46
7	2.199	-19.67	27.07	10.995	393.459	32.25	1.74
8	2.513	-27.07	19.67	1.122	4.927	5.43	1.86
9	2.827	-31.82	10.34	-8.861	255.842	-21.69	1.78
10	3.142	-33.46	0.00	-17.977	1050.363	-46.45	1.54
11	3.456	-31.82	-10.34	-25.333	2085.010	-66.43	1.14
12	3.770	-27.07	-19.67	-30.209	2964.582	-79.68	0.64
13	4.084	-19.67	-27.07	-32.128	3353.114	-84.89	0.06
14	4.398	-10.34	-31.82	-30.902	3102.199	-81.56	0.51
15	4.712	0.00	-33.46	-26.651	2307.679	-70.02	1.04
16	5.027	10.34	-31.82	-19.792	1273.032	-51.38	1.46
17	5.341	19.67	-27.07	-10.995	393.459	-27.48	1.74
18	5.655	27.07	-19.67	-1.122	4.927	-0.66	1.86
19	5.969	31.82	-10.34	8.861	255.842	26.46	1.78
20	6.283	33.46	0.00	17.977	1050.363	51.22	1.54

REACTION DISTRIBUTION

Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	59.5"ø x 0.4375" (18 Sides)	2340.8	47.70	23.56	1.000
Bolt Group	Original (20) 2.25"ø	2340.8	-	23.56	1.000
	TOTALS	**2340.77**	**47.7**	**23.56**	

COMPONENT PROPERTIES

Component	ID	Gross Area (in^2)	Net Area (in^2)	Individual Inertia (in^4)	Moment of Inertia (in^4)	Threads/in
Pole	59.5"ø x 0.4375" (18 Sides)	80.7668	-	-	35223.30	-
Bolt Group	Original (20) 2.25"ø	3.9761	3.2477	0.8393	33580.42	4.5

EXTERNAL BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES

Flat-to-Flat Diameter:	59.62	in
Point-to-Point Diameter:	60.54	in
Flat Width:	10.514	in
Flat Radians:	0.349	rad

PLATE PROPERTIES

Neutral Axis:	326	°
Bend Line Lower Limit:	0.440	rad
Bend Line Upper Limit:	1.445	rad

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in^3)	Applied Moment Mu (k-in)	Moment Capacity ϕMn (k-in)	Ratio
Flat	37.261	0.00	98.391	335.2	4427.6	0.076
Corner	35.747	0.00	94.393	220.7	4247.7	0.052
Circumferential	45.585	0.00	120.373	488.4	5416.8	0.090

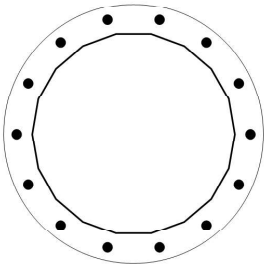
ELASTIC ANCHOR ROD ANALYSIS

Class	Group Quantity	Rod Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity ϕPn (k)	Ratio	Interaction
Original	20	2.25	89.7	0.1	243.6	0.368	0.369

UPPER FLANGE PLATE ANALYSIS @ 129 FT

PLATE PARAMETERS (ID# 14572)

Diameter:	37.52	in
Shape:	Round	
Thickness:	2	in
Grade:	A572-50	
Yield Strength:	50	ksi
Tensile Strength:	65	ksi
Pole Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Elastic	
Neutral Axis:	90	°



FLANGE BOLT PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 14896]	Radial	14	1.5	33.77	A325 (>1")	81	105	-	-

FLANGE BOLT GEOMETRY AND APPLIED LOADS --- ORIGINAL (14) 1.5"ø [ID 14896]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in^4)	Axial Load (k)	Shear Load (k)
1	0.449	15.21	7.33	-14.396	291.403	-7.47	0.28
2	0.898	10.53	13.20	-9.963	139.633	-5.08	0.51
3	1.346	3.76	16.46	-3.556	17.923	-1.61	0.64
4	1.795	-3.76	16.46	3.556	17.923	2.23	0.64
5	2.244	-10.53	13.20	9.963	139.633	5.69	0.51
6	2.693	-15.21	7.33	14.396	291.403	8.09	0.28
7	3.142	-16.88	0.00	15.979	358.947	8.95	0.00
8	3.590	-15.21	-7.33	14.396	291.403	8.09	0.28
9	4.039	-10.53	-13.20	9.963	139.633	5.69	0.51
10	4.488	-3.76	-16.46	3.556	17.923	2.23	0.64
11	4.937	3.76	-16.46	-3.556	17.923	-1.61	0.64
12	5.386	10.53	-13.20	-9.963	139.633	-5.08	0.51
13	5.834	15.21	-7.33	-14.396	291.403	-7.47	0.28
14	6.283	16.88	0.00	-15.979	358.947	-8.33	0.00

REACTION DISTRIBUTION

Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	28.95"ø x 0.25" (18 Sides)	80.6	4.32	5.90	1.000
Bolt Group	Original (14) 1.5"ø	80.6	-	5.90	1.000
	TOTALS	**80.58**	**4.32**	**5.9**	

COMPONENT PROPERTIES

Component	ID	Gross Area (in^2)	Net Area (in^2)	Individual Inertia (in^4)	Moment of Inertia (in^4)	Threads/in
Pole	28.95"ø x 0.25" (18 Sides)	22.4267	-	-	2309.55	-
Bolt Group	Original (14) 1.5"ø	1.7671	1.4053	0.1571	2513.73	6.0

EXTERNAL UPPER FLANGE PLATE BEND LINE ANALYSIS @ 129 FT

POLE PROPERTIES

Flat-to-Flat Diameter:	29.08	in
Point-to-Point Diameter:	29.52	in
Flat Width:	5.127	in
Flat Radians:	0.349	rad

PLATE PROPERTIES

Neutral Axis:	90	°
Bend Line Lower Limit:	2.861	rad
Bend Line Upper Limit:	3.422	rad

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in^3)	Applied Moment Mu (k-in)	Moment Capacity ϕMn (k-in)	Ratio
Flat	21.347	0.00	21.347	12.9	960.6	0.013
Corner	20.722	0.00	20.722	10.9	932.5	0.012
Circumferential	18.316	0.00	18.316	10.9	824.2	0.013

ELASTIC FLANGE BOLT ANALYSIS

Class	Group Quantity	Bolt Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity ϕPn (k)	Ratio	Interaction
Original	14	1.5	8.9	0.0	110.7	0.081	0.081

Site Name: Trumbull CT
Site Number: 210746
Tower Type: MP
Design Loads (Factored) - Analysis per TIA-222-H Standards

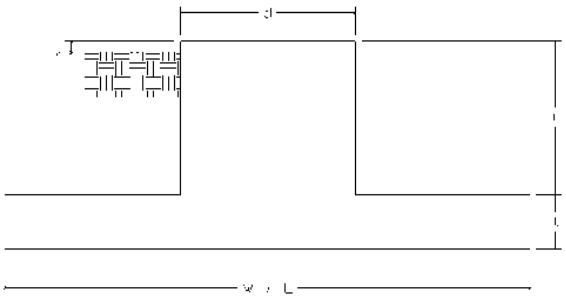
Monolithic Mat & Pier Foundation Analysis

Foundation Analysis Parameters		
Design / Analysis / Mapping:	Mapping	-
Compression/Leg:	47.7	k
Uplift/Leg:	0.0	k
Total Shear:	23.6	k
Moment:	2,340.8	k-ft
Tower + Appurtenance Weight:	47.7	k
Depth to Base of Foundation (l + t - h):	6.5	ft
Diameter of Pier (d):	9.0264	ft
Length of Pier (l):	4	ft
Height of Pier above Ground (h):	0.5	ft
Width of Pad (W):	25	ft
Length of Pad (L):	25	ft
Thickness of Pad (t):	3	ft
Tower Leg Center to Center:	0	ft
Number of Tower Legs:	1	-
Tower Center from Mat Center:	0	ft
Depth Below Ground Surface to Water Table:	99	ft
Unit Weight of Concrete:	150	pcf
Unit Weight of Soil Above Water Table:	125	pcf
Unit Weight of Water:	62.4	pcf
Unit Weight of Soil Below Water Table:	62.6	pcf
Friction Angle of Uplift:	30	°
Coefficient of Shear Friction:	0.5	-
Ultimate Compressive Bearing Pressure:	12,000	psf
Ultimate Passive Pressure on Pad Face:	0	psf
$f_{Soil\ and\ Concrete\ Weight}$:	0.9	-
f_{Soil}:	0.75	-

Overturning Moment Usage		
Design OTM:	2505.7	k-ft
OTM Resistance:	7099.1	k-ft
Design OTM / OTM Resistance:	35%	Pass

Soil Bearing Pressure Usage		
Net Bearing Pressure:	2242	psf
Factored Nominal Bearing Pressure:	9000	psf
Factored Nominal (Net) Bearing Pressure:	25%	Pass
Load Direction Controling Design Bearing Pressure:	*Diagonal to Pad Edge*	

Sliding Factor of Safety		
Ultimate Friction Resistance:	302.4	k
Ultimate Passive Pressure Resistance:	0.0	k
Total Factored Sliding Resistance:	226.8	k
Sliding Design / Sliding Resistance:	10%	Pass



Maser Consulting Connecticut
2000 Midlantic Drive, Suite 100
Mt. Laurel, NJ 08054
856.797.0412
peter.albano@colliersengineering.com

Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10139348
Maser Consulting Connecticut Project #: 21781059A

April 21, 2022

Site Information	*Site ID:*	*467849-VZW / TRUMBULL S 3 CT-Trumbull Police*
	Site Name:	*TRUMBULL S 3 CT-Trumbull Police*
	Carrier Name:	*Verizon Wireless*
	Address:	*158 Edison Rd* *Trumbull, Connecticut 06611* *Fairfield County*
	Latitude:	*41.23431944°*
	Longitude:	*-73.21883055°*
Structure Information	*Tower Type:*	*150-Ft Monopole*
	Mount Type:	*12.50-Ft T-Arm*

FUZE ID # 16486661

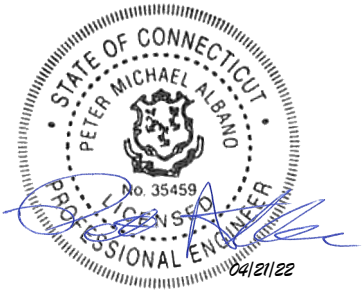
Analysis Results

T-Arm: **48.0% Pass w/ Modifications***

***Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis.**

******Contractor PMI Requirements*:**
Included at the end of this MA report
Available & Submitted via portal at https://pmi.vzwsmart.com
For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

Report Prepared By: Cody Sherman



Executive Summary:

The objective of this report is to summarize the analysis results of the antenna support mount including the proposed modifications at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS Site ID: 1963076, dated August 30, 2021*
Mount Mapping Report	*Hudson Design Group, LLC, Site ID: 467849, dated June 15, 2021*
Previous Mount Analysis	*Maser Consulting Connecticut, Project #: 21781059A, dated March 14, 2022*
Mount Modification Drawings	*Maser Consulting Connecticut, Project #: 21781059A, dated April 21, 2022*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	118 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	B
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.989
Seismic Parameters:	S_S:	0.212
	S_1:	0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

The following equipment has been considered for the analysis of the mounts:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
107.00	109.00	6	JMA Wireless	MX06FRO660-03	Added
		3	Samsung	MT6407-77A	
		3	Samsung	B5/B13 RRH-BR04C	
		3	Samsung	B2/B66A RRH-BR049	
		2	Raycap	OVP6	Retained

The recent mount mapping reported existing OVP units. It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Maser Consulting Connecticut and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Maser Consulting Connecticut to verify deviation will not adversely impact the analysis.

2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

   Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

   The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.

5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Maser Consulting Connecticut is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
   - Channel, Solid Round, Angle, Plate — ASTM A36 (Gr. 36)
   - HSS (Rectangular) — ASTM 500 (Gr. B-46)
   - Pipe — ASTM A53 (Gr. B-35)
   - Threaded Rod — F1554 (Gr. 36)
   - Bolts — ASTM A325

8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Maser Consulting Connecticut.

Analysis Results:

Component	Utilization %	Pass/Fail
Proposed Face Horizontal	44.0%	Pass
Proposed Standoff	46.0%	Pass
Proposed Connection	46.2%	Pass
Mount Pipe	48.0%	Pass
Face Horizontal	30.0%	Pass
Standoff	38.0%	Pass
Mount Connection	44.6%	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**48.0%**

Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	12.8	2.2	21.9	11.3
0.5	16.5	3.0	29.4	15.9
1	20.1	3.5	36.9	20.3

Notes:
- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 1 sector.
- Ka factors included in (EPA)a calculations

Requirements:

The existing mounts will be **SUFFICIENT** for the final loading configuration (attachment 2) after the modifications detailed in attachment 3 are successfully completed.

Contractor shall inspect climbing facilities and safety climb and ensure they are in good condition. Contractor shall install safety climb wire rope guides in locations where wire rope is rubbing against the mount or mount-to-tower connection steel. Wire brush clean any observed corrosion and protect with two (2) coats of cold galvanization (Zinga or Zinc Kote). Contractor shall provide photos of wire rope guide installation as part of PMI documents. Contact EOR if additional guidance is required.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Attachments:

1. **Contractor Required PMI Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Modification Drawings
4. Mount Photos
5. Mount Mapping Report (for reference only)
6. Analysis Calculations

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

Electronic pdf version of this can be downloaded at https://pmi.vzwsmart.com
For additional questions and support, please reach out to pmisupport@colliersengineering.com

---

PSLC #: 467849 SMART Project #: 10139348 Fuze Project ID: 16486661

Purpose – to upload the proper documentation to the SMART Tool in order to allow the SMART Tool engineering vendor to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the modification was completed in accordance with the modification drawings.
- Contractor shall relay any data that can impact the performance of the mount or the mount modification, this includes safety issues.

Base Requirements:

- If installation of the modification will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide "as built drawings" showing contractor's name, preparer's signature, and date. Any deviations from the drawings (proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the post-modification passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo shall be time and date stamped.
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: **https://pmi.vzwsmart.com**

Photo Requirements:

- *Photos taken at ground level*
  - Photo of Gate Signs showing the tower owner, site name, and number.
  - Overall tower structure after installation of the modifications.
  - Photos of the mount after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed

- *Photos taken at Mount Elevation*
  - Photos showing the safety climb wire rope above and below the mount prior to modification.
  - Photos showing the climbing facility and safety climb if present.

- Photos showing each individual sector after installation of modifications. Each entire sector must be in one photo to show the interconnection of members.
    - These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.
- Photos of each installed modification per the modification drawings; pictures shall also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
- Photos showing the distances (relative distance between collars) of the installed modifications from the appropriate reference locations shown in the modification drawings.
- Photos showing the installed modifications onto the tower (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, an elevation measurement shall be provided before the elevation change.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by the SMART Tool vendor.
    - If the materials are as specified on the drawings
        - The contractor shall provide the packing list, or the materials certifications for the materials utilized to perform the mount modification
        - Commscope, Metrosite, Perfect Vision, Sabre, and Site Pro have all agreed to support Verizon vendors with the necessary material certifications
    - If seeking permission to use an equivalent
        - It is required that the SMART Tool engineering vendor approval of such is included in the contractor submission package. There may be an additional charge for approval if the equivalent submission doesn't meet specifications as prescribed in the drawings.

☐ All hardware has been properly installed, and the existing hardware was inspected.

☐ The material utilized was as specified on the SMART Tool engineering vendor Mount Modification Drawings and included in the material certification folder is a packing list or invoice for these materials.

OR

☐ The material utilized was approved by a SMART Tool engineering vendor as an "equivalent" and this approval is included as part of the contractor submission.

Antenna & Equipment Placement and Geometry Confirmation:

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

OR

☐ The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

Comments:

Was the mount modification completed in conjunction with the equipment change / installation?

☐ Yes ☐ No

Special Instructions / Validation as required from the MA or Mod Drawings:

Issue:

Contractor shall inspect climbing facilities and safety climb and ensure they are in good condition. Contractor shall install safety climb wire rope guides in locations where wire rope is rubbing against the mount or mount-to-tower connection steel. Wire brush clean any observed corrosion and protect with two (2) coats of cold galvanization (Zinga or Zinc Kote). Contractor shall provide photos of wire rope guide installation as part of PMI documents. Contact EOR if additional guidance is required.

Response:

Special Instruction Confirmation:

☐ The contractor has read and acknowledges the above special instructions.

Comments:

Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:

☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

☐ Yes ☐ No

Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

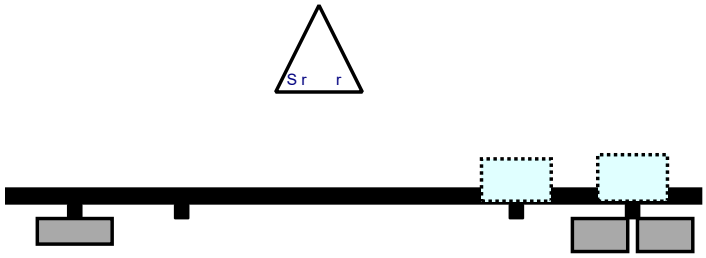
☐ Safety Climb in Good Condition ☐ Safety Climb Damaged

Comments:

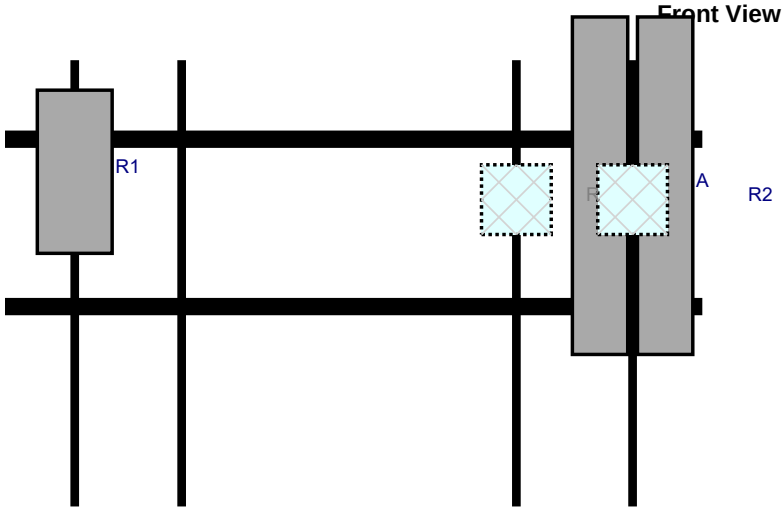
Certifying Individual:

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

Plan View

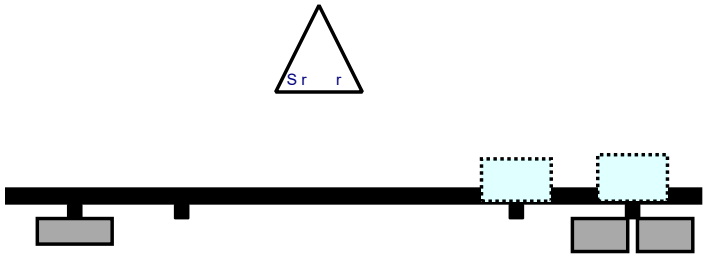


Front View - L Sr r

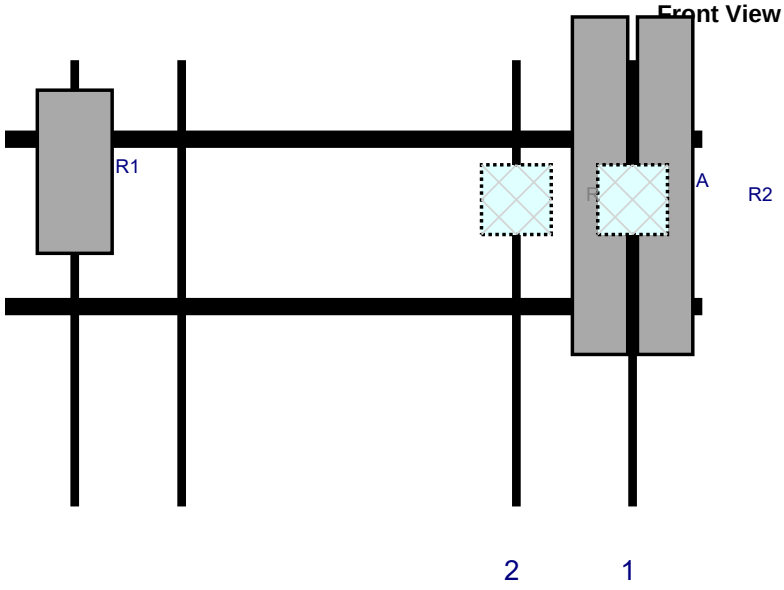


R	M d		d	D	P	P	A	. A	A			
				r L.		P	P	r T.	O	S		d
A	SB	1D B	2.	11.	1	1		r	2	R	d	1 2 21
A	SB	1D B	2.	11.	1	1		r	2	R	d	1 2 21
R2	R	d 2 A	1	1	1	1		B	d	Add	d	
R	R	d 1 A	1	1	11	2		B	d	Add	d	
R1	MT	A	.1	1 .1	1			r	2	Add	d	
M1	O P		2 .	1 .		M	r			R	d	1 2 21

Plan View



Front View - L Sr r



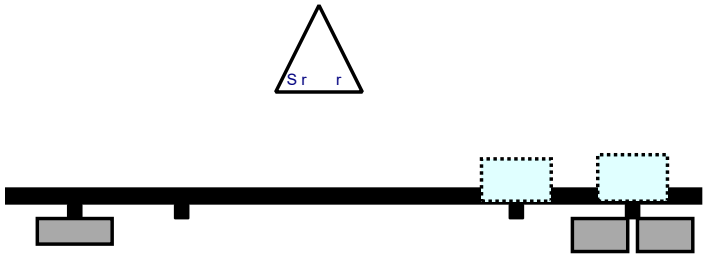
R	M d		d	D	P	P	A	. A	A			
				r L.		P	P	r T.	O	S		d
A	SB	1D B	2.	11.	1	1		r	2		R d	1 2 21
A	SB	1D B	2.	11.	1	1		r	2		R d	1 2 21
R2	R	d 2 A	1	1	1	1		B	d		Add d	
R	R	d 1 A	1	1	11	2		B	d		Add d	
R1	MT	A	.1	1 .1	1			r	2		Add d	

S r **C** 1 2 22

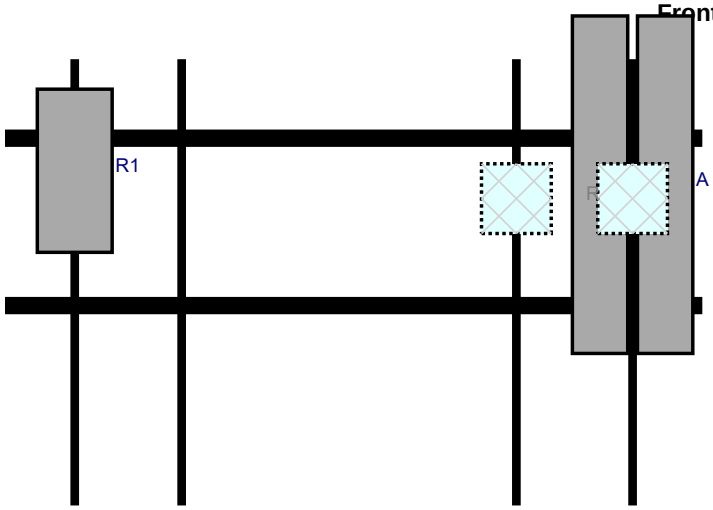
Sr r T M 1 1

M E 1 . P

Plan View



Front View - L Sr r



2 1

R	M d		d	D	P	P	A	. A	A			
				r L.		P	P	r T.	O	S		d
A	SB	1D B	2.	11.	1	1		r	2		R d	1 2 21
A	SB	1D B	2.	11.	1	1		r	2		R d	1 2 21
R2	R	d 2 A	1	1	1	1		B	d		Add d	
R	R	d 1 A	1	1	11	2		B	d		Add d	
R1	MT	A	.1	1 .1	1			r	2		Add d	

verizon

MOUNT MODIFICATION DRAWINGS
EXISTING 12.50' T-ARM

TOWER OWNER: BLUE SKY TOWER PARTNERS LLC
TOWER OWNER SITE NUMBER: CT-5005

CARRIER SITE NAME: TRUMBULL S 3 CT - TRUMBULL POLICE
CARRIER SITE NUMBER: 467849
FUZE ID: 16486661

158 EDISON RD
TRUMBULL, CONNECTICUT 06611
FAIRFIELD COUNTY

LATITUDE: 41.23431944° N
LONGITUDE: 73.21883055° W

DESIGN CRITERIA

WIND LOADS

BASIC WIND SPEED (3 SECOND GUST), V = 118 MPH
EXPOSURE CATEGORY B
TOPOGRAPHIC CATEGORY 1
MEAN BASE ELEVATION (AMSL) = 319.05'

ICE LOADS

ICE WIND SPEED (3 SECOND GUST), V = 50 MPH
ICE THICKNESS = 1.00 IN

SEISMIC LOADS

SEISMIC DESIGN CATEGORY B
SHORT TERM MCER GROUND MOTION, S_S = .212
LONG TERM MCER GROUND MOTION, S_1 = .054

PROJECT INFORMATION

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON WIRELESS

PROJECT MANAGER

COMPANY: MASER CONSULTING CONNECTICUT
CONTACT: PETER ALBANO
PHONE: 856-797-0412
E-MAIL: PETER.ALBANO@COLLIERSENGINEERING.COM

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 10139348
VZW LOCATION CODE (PSLC): 467849
ANALYSIS DATE: 4/21/2022

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

SHEET INDEX

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SCALE: AS SHOWN
JOB NUMBER: 21781059A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
1	4/19/2022	ISSUED FOR CONSTRUCTION	CMS	PA
0	9/15/2021	ISSUED FOR CONSTRUCTION	FAC	DX

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE NAME:
TRUMBULL S 3 CT - TRUMBULL POLICE
158 EDISON RD
TRUMBULL, CONNECTICUT 06611
FAILFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: TITLE SHEET

SHEET NUMBER: ST-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

SECTION 1 - VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	VZWSMART	VZWSMART-SFK4	T-ARM KIT	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1	106	318
1		VZWSMART-PLK7	MONOPOLE COLLAR MOUNT ASSEMBLY		150	150
12		VZWSMART-MSK2	CROSSOVER PLATE		15	180
3		VZWSMART-P40-312X150	150" LONG, PIPE 3 STD (3.5"OD X 0.216" THK)	GALVANIZED	95	285

SECTION 2 - OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
					TOTAL:	933

NOTES:

1. THE MANUFACTURERS LISTED ARE THE APPROVED VENDORS FOR THE VZW MOUNT KITS. EACH MANUFACTURER WILL BE AWARE OF WHICH KITS HAVE BEEN THROUGH THE VZW APPROVAL PROCESS AND THEY ARE IN TURN APPROVED TO SELL. PLEASE NOTE THAT THE MATERIAL UTILIZED ON THE MOUNT MODIFICATIONS WILL BE REVIEWED AS A PART OF THE DESKTOP PMI COMPLETED BY THE SMART TOOL VENDOR. IT WILL BE REQUIRED THAT THE VZW KITS SPECIFIED ARE UTILIZED IN THE MODIFICATIONS.
2. ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.

VZWSMART KITS - APPROVED VENDORS

COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM
METROSITE FABRICATORS, LLC	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM
PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM
SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM
SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

VZWSMART KITS - APPROVED VENDORS

NEWAVE	
CONTACT	NEWAVE SALES TEAM
PHONE	(971) 239-4762
EMAIL	SALES@NEWAVETC.COM
WEBSITE	WWW.NEWAVETC.COM
BETTER METAL, LLC	
CONTACT	DAVID STANSBERRY
PHONE	(615) 535-0990 (O), (615) 631-2520 (M)
EMAIL	DLS@BETTERMETAL.COM
WEBSITE	WWW.BETTERMETAL.COM

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JOB NUMBER: 21781059A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
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0	9/15/2021	ISSUED FOR CONSTRUCTION	FAC	DX

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE NAME:

TRUMBULL S 3 CT -
TRUMBULL POLICE

158 EDISON RD
TRUMBULL, CONNECTICUT 06611
FAILFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: BILL OF MATERIALS

SHEET NUMBER: SBOM-1

PROJECT NOTES

1. SEE MODIFICATION NOTES

2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC/GOVERNING AUTHORITIES.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.

4. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE AS A RESULT OF CONSTRUCTION OF THIS FACILITY AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

6. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

7. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CONSTRUCTION DRAWINGS.

8. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THESE DRAWINGS MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

9. SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY POTENTIALLY DANGEROUS EXPOSURE LEVELS.

10. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY AS TO CAUSE A NUISANCE.

11. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS IS REQUIRED).

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TIA-222-H. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING STRUCTURES. ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THE CONTRACTOR'S WORK OR FROM DAMAGE DUE TO OTHER CAUSES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK, ORDERING MATERIAL, AND PREPARING OF SHOP DRAWINGS. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE ENGINEER IMMEDIATELY.
4. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
6. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/TIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/TIA-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.
8. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 30-MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, SHORING, BRACING AND ANY OTHER STRUCTURAL SYSTEMS AS REQUIRED TO RESIST ALL FORCES THAT MAY OCCUR DURING HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THEIR USE.
9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSI/TIA-322.
10. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
11. CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CONNECTIONS SHALL BE DESIGNED, COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.
12. DO NOT SCALE DRAWINGS.
13. DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
14. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZE AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT.

STRUCTURAL STEEL

1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
   a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
   b. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS
   c. AISC CODE OF STANDARD PRACTICE
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE SHOWN:

CHANNELS, ANGLES, PLATES, ETC.	ASTM A36 (GR 36)
STEEL PIPE	ASTM A53 (GR 35)
BOLTS	ASTM A325
NUTS	ASTM A563
LOCK WASHERS	LOCKING STRUCTURAL GRADE

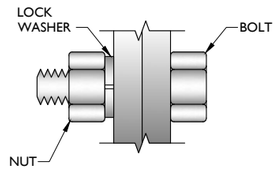
3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR VERIFYING THE SUBSTITUTE IS SUITABLE FOR USE AND MEETS ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
   a. SUBMIT SHOP DRAWINGS TO
      PETER.ALBANO@COLLIERSENGINEERING.COM
   b. PROVIDE MASER CONSULTING PROJECT # AND MASER CONSULTING PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
7. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
8. CONTRACTOR SHALL PROTECT CUT ENDS OF ALL FIELD-CUT STEEL WITH TWO (2) COATS OF COLD GALVANIZATION (ZINGA OR ZINC COTE).
9. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4.9.2 REQUIREMENTS.
10. WHERE CONNECTIONS ARE NOT FULLY DETAILED ON THESE DRAWINGS, FABRICATOR SHALL DESIGN CONNECTIONS TO RESIST LOADS AND FORCES WHERE SHOWN ON DRAWINGS AND AS OUTLINED IN SPECIFICATIONS.
11. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
12. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT IS AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
13. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
14. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINGA OR ZINC COTE), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.

WELDING NOTES

1. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AWS D1.0 (LATEST EDITION). THIS SHALL INCLUDE A CERTIFIED WELD INSPECTION (CWI) FOR ACCEPTANCE OR REJECTION OF ALL WELDING OPERATIONS, PRE, DURING, AND POST INSTALLATION, USING THE ACCEPTANCE CRITERIA OF AWS D1.1.
2. CONTRACTOR IS RESPONSIBLE FOR COMMISSIONING A THIRD PARTY CERTIFIED WELD INSPECTOR (CWI) THROUGHOUT THE ENTIRETY OF THE PROJECT. A PASSING CWI REPORT SHALL BE PROVIDED TO THE ENGINEER UPON COMPLETION OF THE PROJECT.
3. THE CERTIFIED WELD INSPECTOR SHALL INDICATE, IN A WRITTEN CWI REPORT, THAT ALL WELDING OPERATIONS PRE, DURING, AND POST INSTALLATION WERE CONDUCTED IN ACCORDANCE WITH AWS D1.1 WITH PHOTOGRAPHS AND DOCUMENTATION SUPPORTING THE ACCEPTANCE OR REJECTION OF ALL WELDING. ALL CWI WELD INSPECTION DOCUMENTATION AND PHOTOS SHALL BE SUBMITTED DURING THE PMI.
4. IN CASES WHERE A WELD IS SPECIFIED BETWEEN TWO MEMBERS IN WHICH THERE IS A GAP IN BETWEEN, THE WELD IS TO BE BUILT-UP SUCH THAT THE SIZE OF WELD ON THE MEMBER IS EQUAL TO THAT SHOWN IN THE DRAWINGS.
5. OXY FUEL GAS WELDING OR BRAZING IS STRICTLY PROHIBITED. SPECIFICALLY, NO TORCH CUTTING IS PERMITTED ON SITE. ALL HOLES SHALL BE CUT WITH A GRINDER.
6. CONTRACTOR SHALL EXERCISE CAUTION WHEN WELDING A GALVANIZED SURFACE.
7. CONTRACTOR SHALL HAVE A FIRE PROTECTION PLAN IN PLACE THAT CONFORMS WITH ALL OSHA, ANSI/ASSP A10.48, ANSI Z49.1, AND LOCAL JURISDICTIONAL REQUIREMENTS.

BOLT SCHEDULE (IN.)				
BOLT DIAMETER	**STANDARD HOLE**	**SHORT SLOT**	**MIN. EDGE DISTANCE**	**SPACING**
1/2	9/16	9/16 x 11/16	7/8	1 1/2
5/8	11/16	11/16 x 7/8	1 1/8	1 7/8
3/4	13/16	13/16 x 1	1 1/4	2 1/4
7/8	15/16	15/16 x 1 1/8	1 1/2	2 5/8
1	1 1/16	1 1/16 x 1 5/16	1 3/4	3

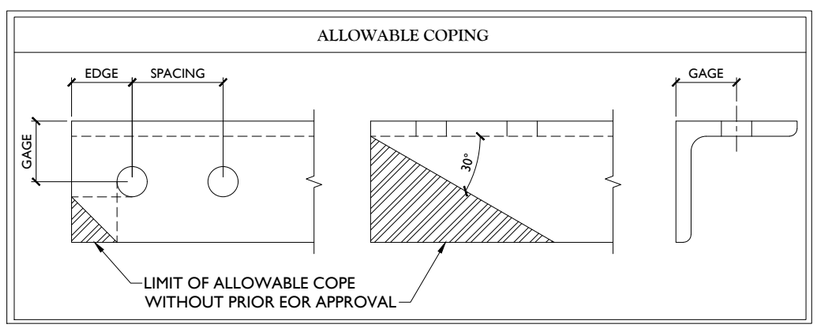
WORKABLE GAGES (IN.)	
LEG	**GAGE**
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8



TYP. BOLT ASSEMBLY

NOTES:

1. ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
3. SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS
4. MATCH EXISTING GAGES WHEN APPLICABLE, UNLESS MINIMUM EDGE DISTANCES ARE COMPROMISED.



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FAILFIELD COUNTY

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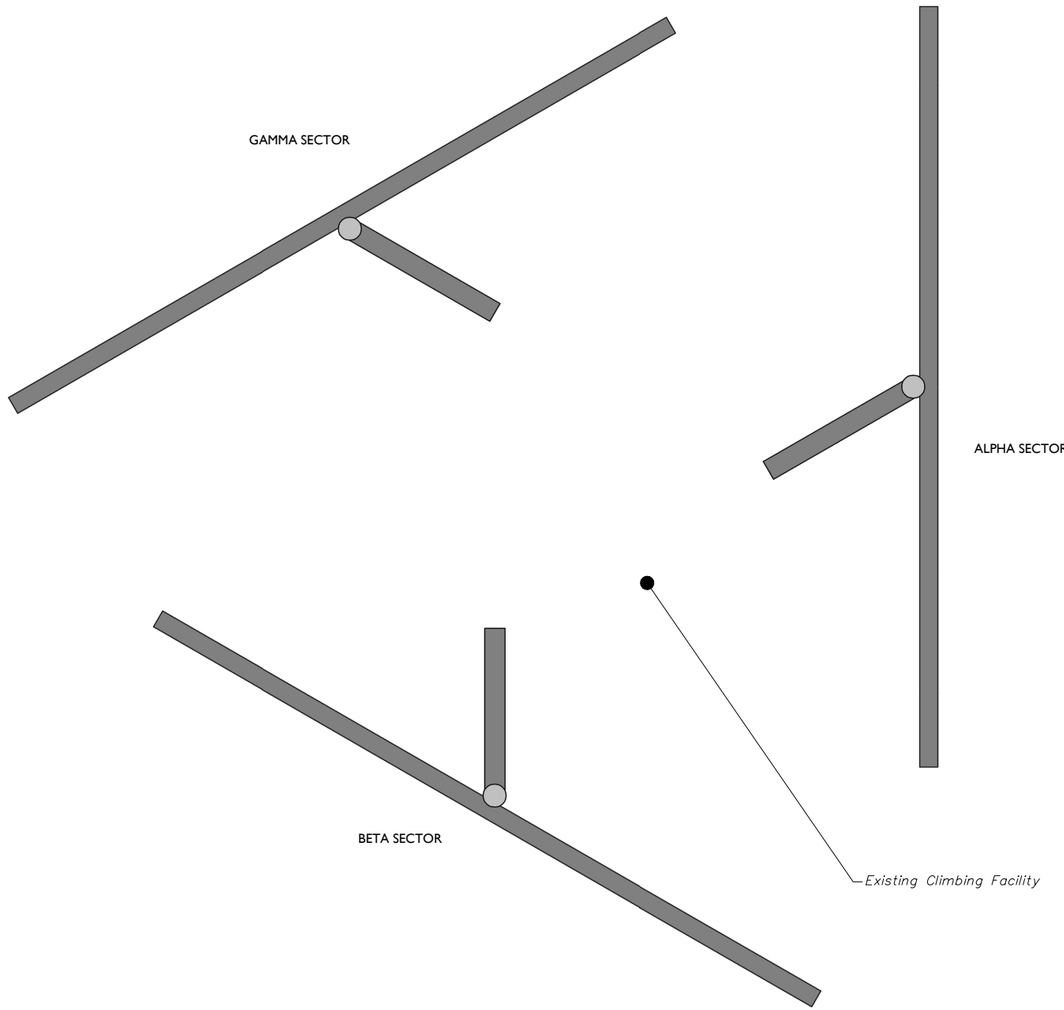
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: MODIFICATION NOTES

SHEET NUMBER: SGN-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



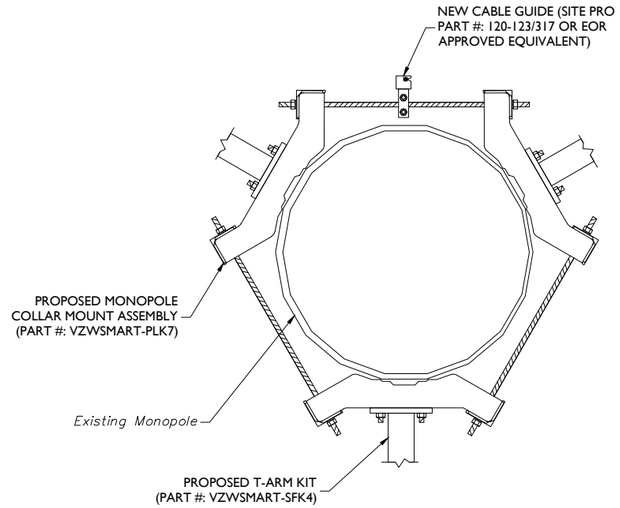
1 CLIMBING FACILITY LOCATION

SCALE : N.T.S.

STRUCTURAL NOTES:

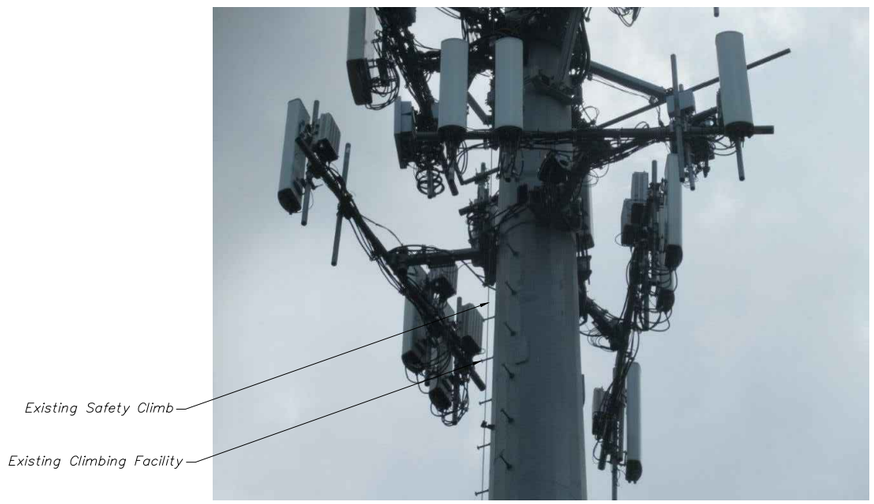
1. PER THE MOUNT MAPPING COMPLETED BY HUDSON DESIGN GROUP, LLC. ON 6/15/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (107'-0") ARE IN GOOD CONDITION. MASER DOES NOT WARRANT THIS INFORMATION.

2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.



2 PROPOSED CABLE GUIDE THREADED ROD ATTACHMENT - PLAN VIEW

SCALE : N.T.S.



CLIMBING FACILITY PHOTO

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Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE :
CLIMBING FACILITY DETAIL

SHEET NUMBER :
SCF-1

LEGEND:

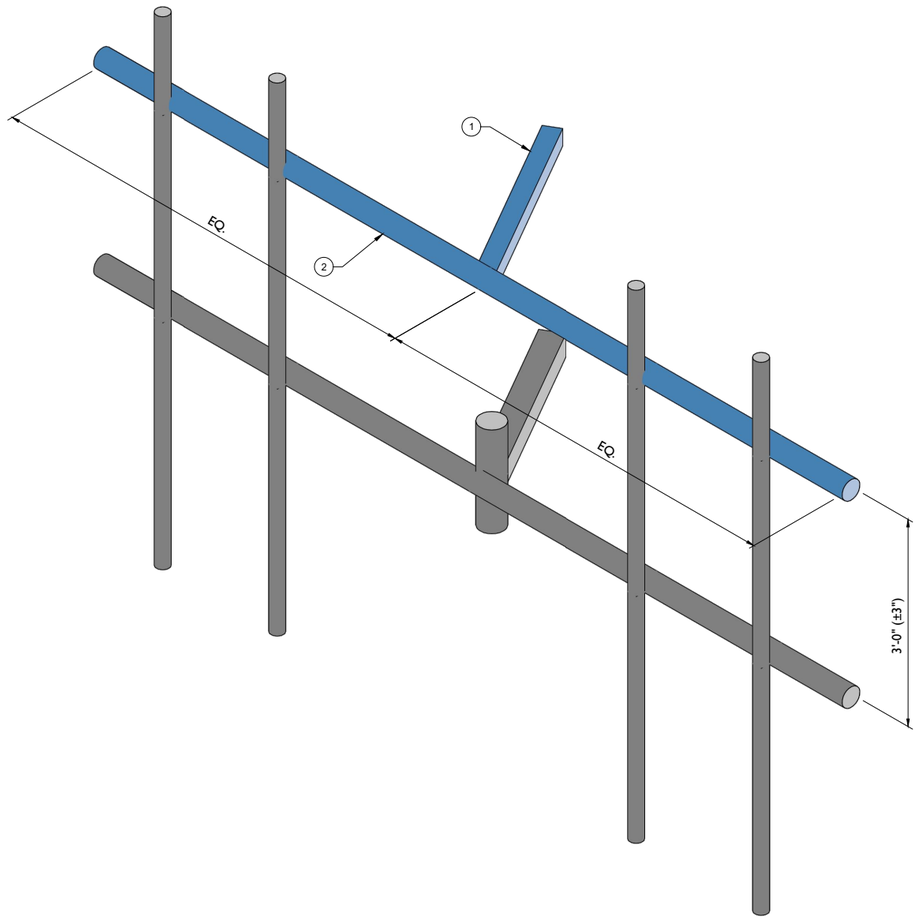
- PROPOSED
- RELOCATED
- EXISTING

MOUNT MODIFICATION SCHEDULE

NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	107'-0"	3	PROPOSED T-ARM KIT (PART #: VZWSMART-SFK4)	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1. CONNECT OTHER END OF T-ARM KIT TO MONOPOLE COLLAR MOUNT ASSEMBLY (PART #: VZWSMART-PLK7).
2		3	150" LONG, P3 STD FACE HORIZONTAL (VZWSMART-P40-312X150)	GALVANIZED, CONNECT NEW HORIZONTAL TO ALL EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).

NOTES.

MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.



1 PROPOSED ISOMETRIC VIEW

SCALE : N.T.S.

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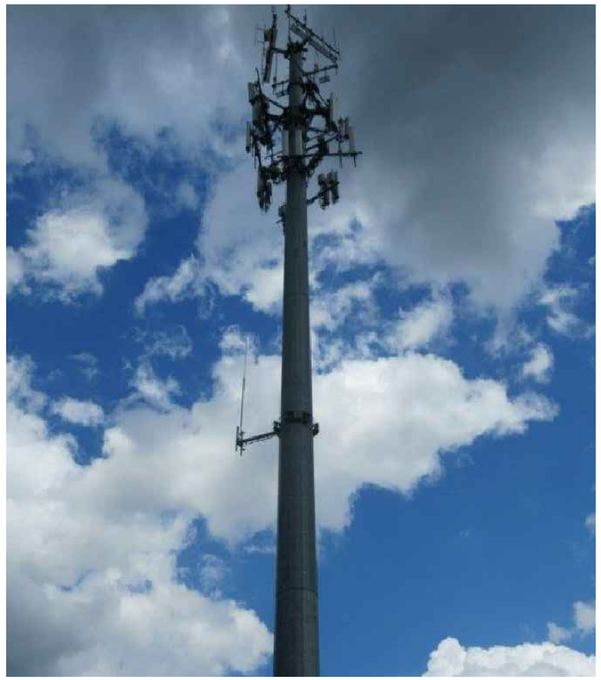

MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3

MOUNT PHOTO 4

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SCALE : AS SHOWN

JOB NUMBER : 21781059A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
1	4/19/2022	ISSUED FOR CONSTRUCTION	CMS	PA
0	9/15/2021	ISSUED FOR CONSTRUCTION	FAC	DX

SITE NAME:

TRUMBULL S 3 CT - TRUMBULL POLICE

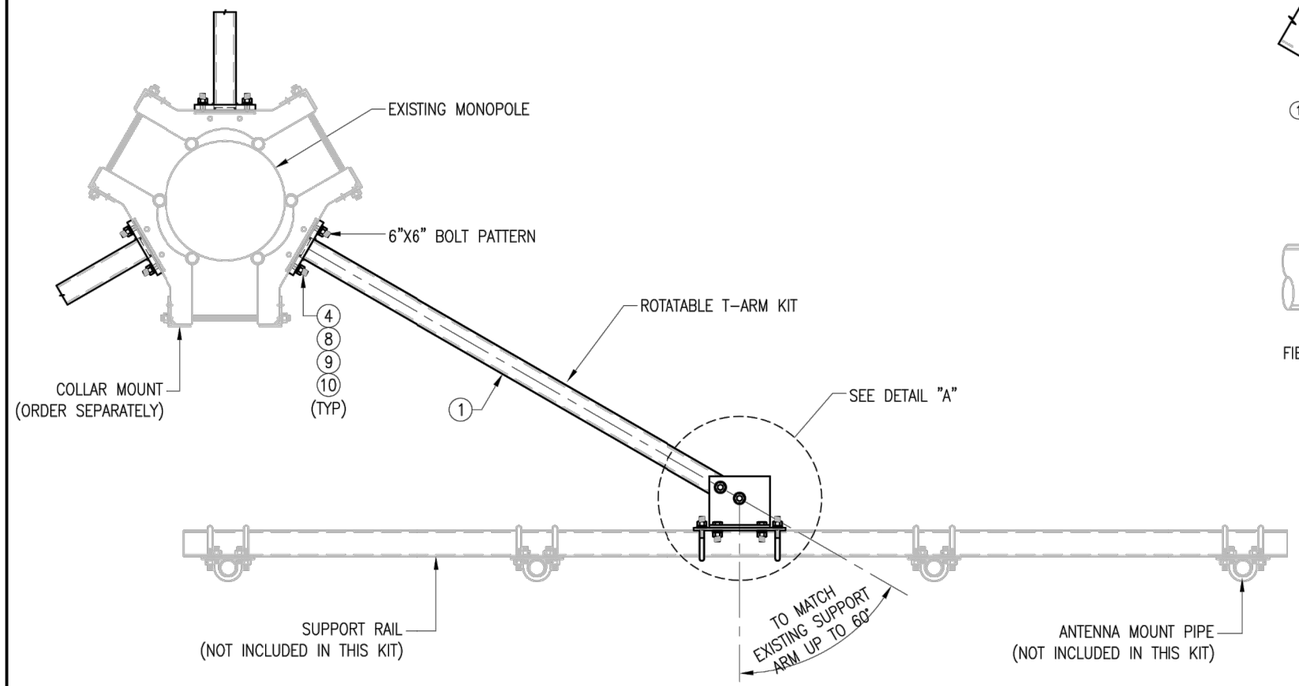
158 EDISON RD
TRUMBULL, CONNECTICUT 06611
FAILFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054

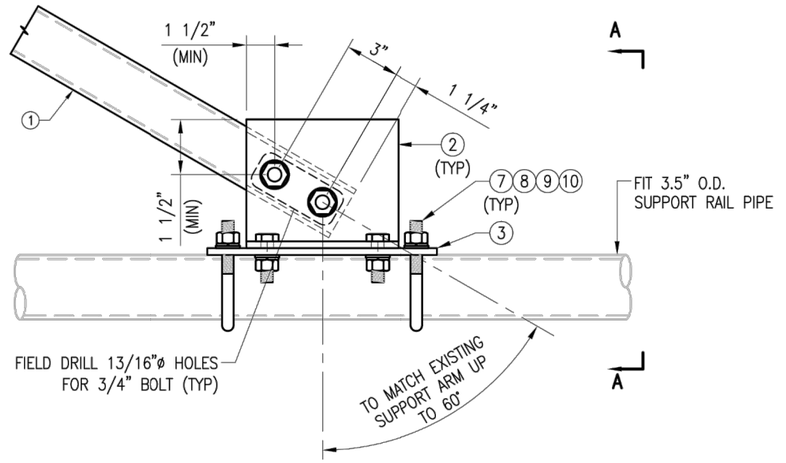
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE : MOUNT PHOTOS

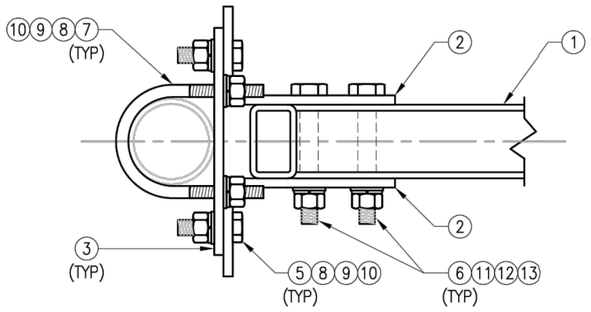
SHEET NUMBER : SS-2



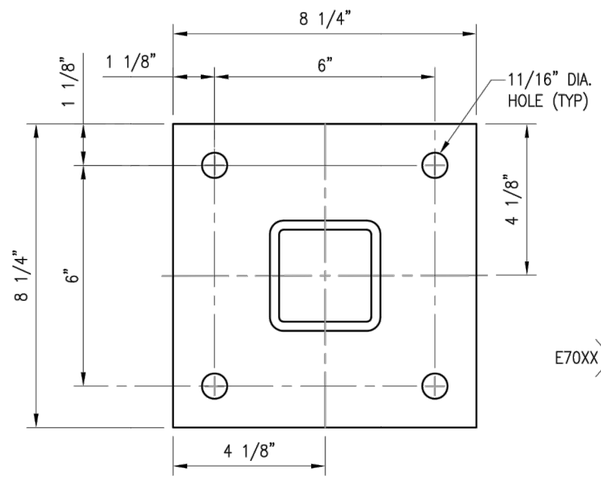
PLAN VIEW
T-ARM KIT



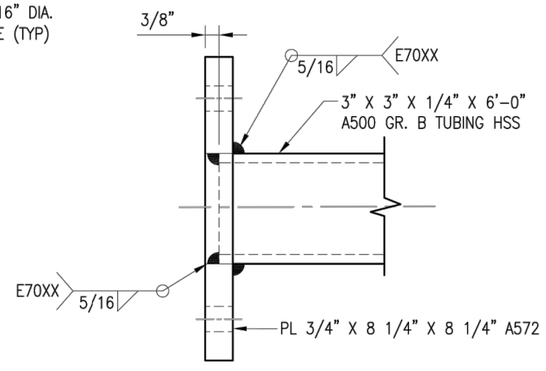
DETAIL "A"



SECTION "A-A"



FRONT VIEW



SIDE VIEW

RO-TAW-6 WELDMENT

VZWSMART-SFK4 (T-ARM KIT)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	RO-TAW-6	T-ARM WELDMENT	SFK4-F1	71
2	2	BP825-94375	PL 3/8" X 8 1/4" X 9 7/16" A36 BEND PLATE	SFK4-F2	17
3	1	PL375-92512025	PL 3/8" X 9 1/4" X 1'-0 1/2" A36	SFK4-F3	12
4	4	---	BOLT 5/8" X 2 1/4" A325	---	0
5	4	---	BOLT 5/8" X 2" A325	---	0
6	2	---	BOLT 3/4" X 5 1/4" A325	---	0
7	2	MS02-625-3625-600	RU-BOLT 5/8" X 3 5/8" I.W. X 6" I.L. A36 (OR EQUIV.)	RBC-1	3
8	12	FW-625	5/8" HDG USS FLAT WASHER	---	1
9	12	LW-625	5/8" HDG LOCK WASHER	---	0
10	12	NUT-625	5/8" HDG HEX NUT	---	1
11	2	FW-75	3/4" HDG USS FLAT WASHER	---	0
12	2	LW-75	3/4" HDG LOCK WASHER	---	0
13	2	NUT-75	3/4" HDG HEX NUT	---	0
				GALVANIZED WT	106

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VzW
SMART Tool©
Vendor

verizon

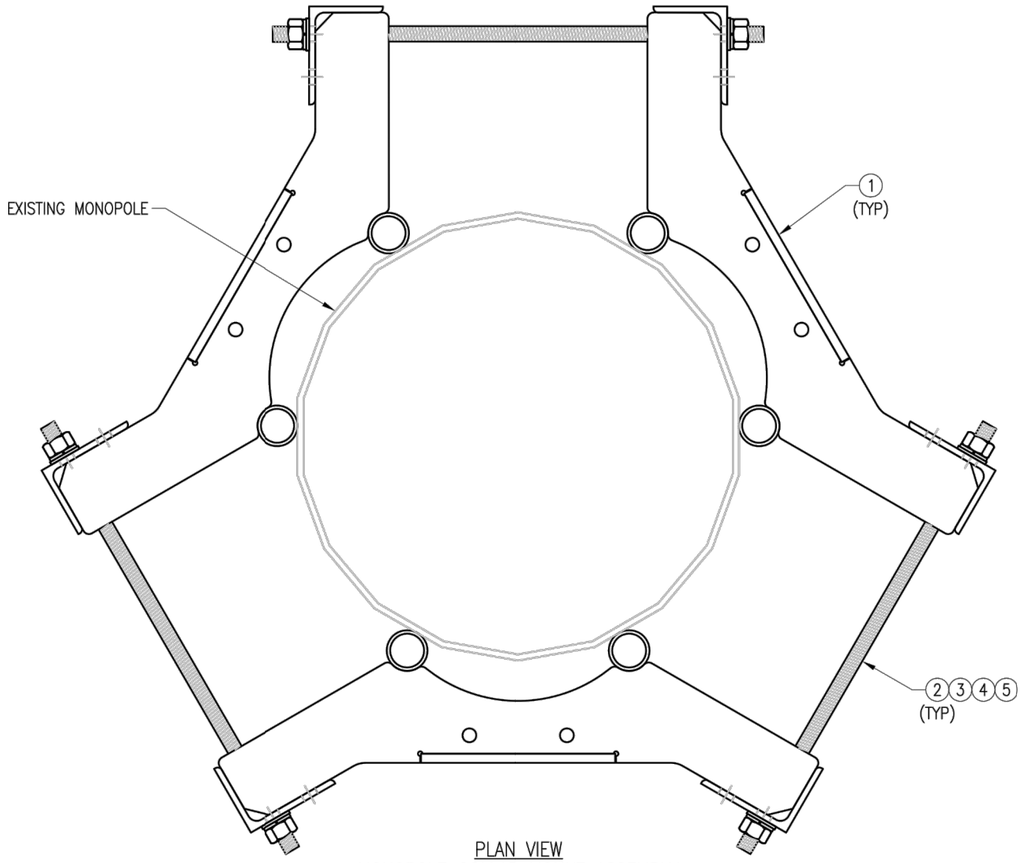
DRAWN BY: BT | CHECKED BY: HMA/KW

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	05/08/20

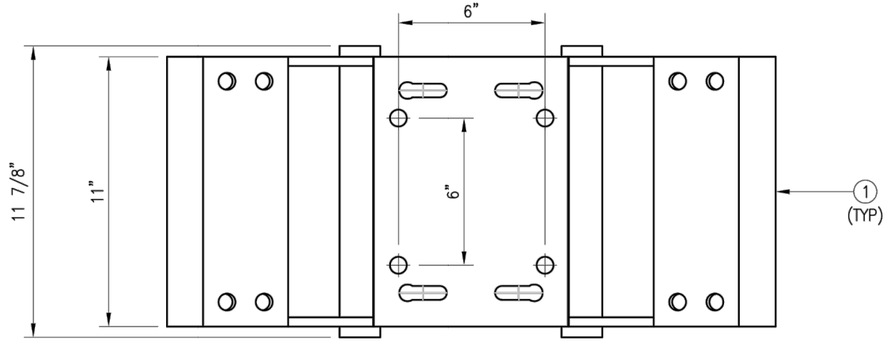
SHEET TITLE:
VZWSMART-SFK4
T-ARM KIT

SHEET NUMBER: VZWSMART-SFK4

REV #: 0



PLAN VIEW
MONOPOLE COLLAR MOUNT ASSEMBLY



FRONT VIEW

NOTES:
1. FIT 12" TO 45" DIA MONOPOLE.
2. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-PLK7 (MONOPOLE COLLAR MOUNT ASSEMBLY)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	3	CM-1245	COLLAR MOUNT ASSEMBLY	PLK7-F1	147
2	6	---	THREADED ROD 5/8" X 4'-0" A193-B7	---	
3	12	FW-625	5/8" HDG USS FLAT WASHER	---	1
4	12	LW-625	5/8" HDG LOCK WASHER	---	0
5	12	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	150

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SMART Tool©
Vendor

verizon

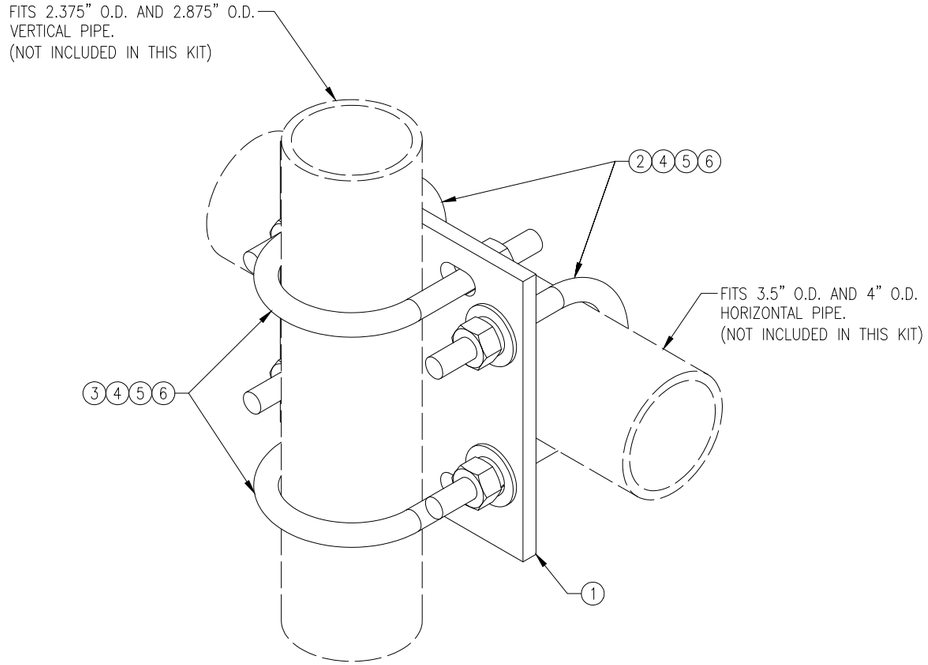
DRAWN BY: BT | CHECKED BY: HMA/KW

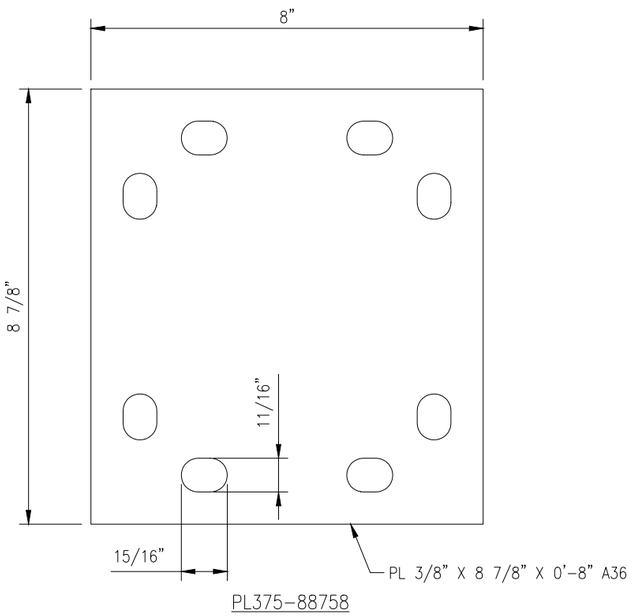
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	05/11/20

SHEET TITLE:
VZWSMART-PLK7
MONOPOLE COLLAR
MOUNT ASSEMBLY

SHEET NUMBER: VZWSMART-PLK7

REV #: 0





PL375-88758

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-MSK2 (CROSSOVER PLATE)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-88758	PL 3/8" X 8 3/4" X 0'-8" A36	MSK2-F1	8
2	2	MS02-625-4125-600	RU-BOLT 5/8" X 4 1/8" I.W. X 6" I.L. A36 (OR EQUIV.)	RBC-1	3
3	2	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	3
4	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
5	8	LW-625	5/8" HDG LOCK WASHER	---	0
6	8	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	15

VzW SMART Tool© Vendor

verizon

DRAWN BY: H.R | CHECKED BY: HMA

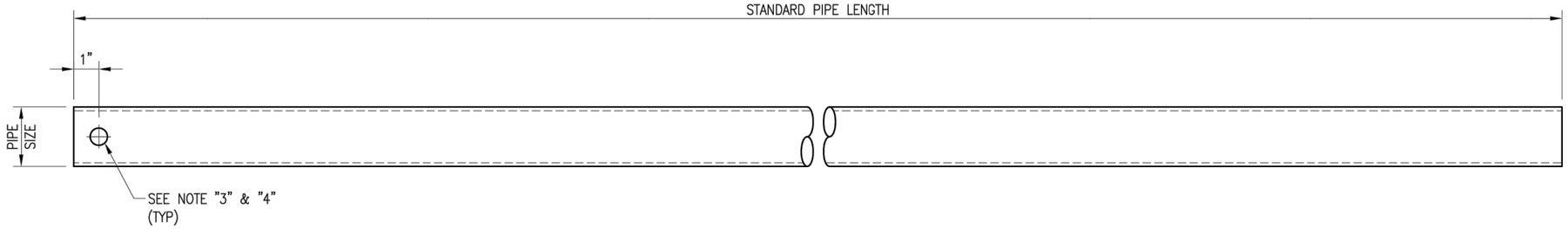
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	H.R	05/08/20

SHEET TITLE:

VZWSMART-MSK2
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK2

REV #: 0



VZWSMART Standard Pipe		
VZWSMART Number	Size	Length
P40-238X048	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	48"
P40-238X072	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	72"
P40-238X096	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	96"
P40-238X120	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	120"
P40-238X126	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	126"
P40-238X150	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	150"
P40-238X174	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	174"
P40-278X048	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	48"
P40-278X072	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	72"
P40-278X096	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	96"
P40-278X120	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	120"
P40-278X126	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	126"
P40-278X150	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	150"
P40-278X174	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	174"
P40-312X048	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	48"
P40-312X072	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	72"
P40-312X126	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	126"
P40-312X150	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	150"
P40-312X174	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	174"

NOTE:
APPROVED SMART KIT VENDORS ARE ALLOWED TO SUBSTITUTE AT THEIR DISCRETION PIPES LISTED ON THIS PAGE FOR CUSTOM LENGTH COMPONENTS OF MATCHING SIZE. SUBSTITUTIONS SHALL MEET THE ORIGINAL STRUCTURAL INTENT.

NOTES:
1. ALL PIPE GRADE A53–B OR BETTER.
2. HOT–DIPPED GALVANIZED PER ASTM A123.
3. ALL HOLES ARE 11/16" DIA. U.N.O
4. HOLES MAY OR MAY NOT BE PRESENT, DEPEND UPON MANUFACTURE DISCRETION.
5. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA OR ZINC COTE PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

VzW SMART Tool© Vendor

verizon

DRAWN BY: BT | CHECKED BY: HMA/KW

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	08/04/21

SHEET TITLE:
VZWSMART STANDARD PIPE

SHEET NUMBER: VZWSMART–PIPE | REV #: 0

V4.0 Updated on 3-31-2021

Antenna Mount Mapping Form (PATENT PENDING)

FCC #

Tower Owner:	Blue Sky	**Mapping Date:**	6/15/2021
Site Name:	TRUMBULL S 3 CT	**Tower Type:**	Monopole
Site Number or ID:	467849	**Tower Height (Ft.):**	150
Mapping Contractor:	HUDSON DESIGN GROUP, LLC.	**Mount Elevation (Ft.):**	106.5

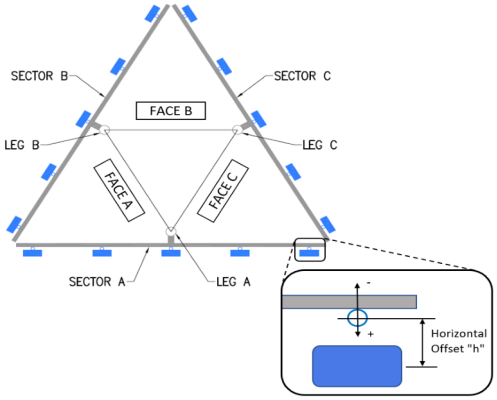
Please insert the sketches of the antenna mount from the "Sketches" tab with dimensions and members here.

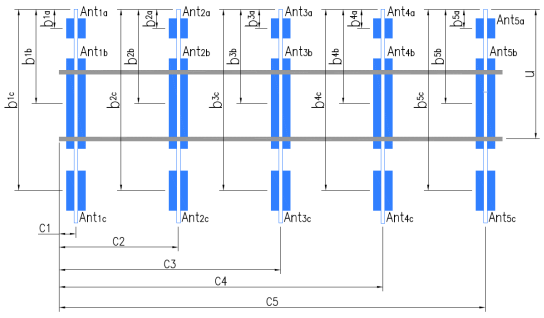
Mount Pipe Configuration and Geometries [Unit = Inches]

Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	2" STD. PIPE X 96" LONG	53.00	15.00	C1	2" STD. PIPE X 96" LONG	53.00	15.00
A2	2" STD. PIPE X 96" LONG	53.00	40.00	C2	2" STD. PIPE X 96" LONG	53.00	40.00
A3	2" STD. PIPE X 96" LONG	53.00	112.00	C3	2" STD. PIPE X 96" LONG	53.00	112.00
A4	2" STD. PIPE X 96" LONG	53.00	135.00	C4	2" STD. PIPE X 96" LONG	53.00	135.00
A5				C5			
A6				C6			
B1	2" STD. PIPE X 96" LONG	53.00	15.00	D1			
B2	2" STD. PIPE X 96" LONG	53.00	40.00	D2			
B3	2" STD. PIPE X 96" LONG	53.00	112.00	D3			
B4	2" STD. PIPE X 96" LONG	53.00	135.00	D4			
B5				D5			
B6				D6			

Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	
Please enter additional infomation or comments below.	

Tower Face Width at Mount Elev. (ft.):		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	33
For T-Arms/Platforms on monopoles, report the weld size from the main standoff to the plate bolting into the collar mount.			0.375





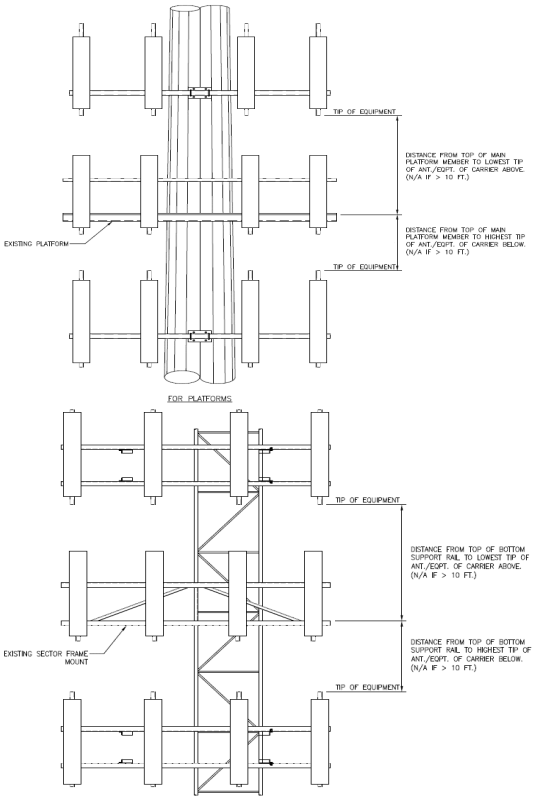
Antenna Layout (Looking Out From Tower)

Ants. Items	Enter antenna model. If not labeled, enter "Unknown". Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Mounting Locations [Units are inches and degrees] Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photos of antennas Photo Numbers
Sector A										
Ant_{1a}	B13 RRH4x30	12.00	7.50	20.50		108.208	32.50	-7.00		26,35
Ant_{1b}	SBNHH-1D65B	12.00	7.00	73.00		107.833	37.00	9.00	335.00	23,26
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	B25 RRH 4x30	12.00	7.50	20.50		109.583	16.00	-7.00		27,37
Ant_{3b}	SBNHH-1D65B	12.00	7.00	73.00		107.833	37.00	9.00	335.00	24,27
Ant_{3c}										
Ant_{4a}	B66a RRH 4x45	12.00	7.50	20.50		108.208	32.50	-7.00		27,40
Ant_{4b}	SBNHH-1D65B	12.00	7.00	73.00		107.833	37.00	9.00	335.00	24,27
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

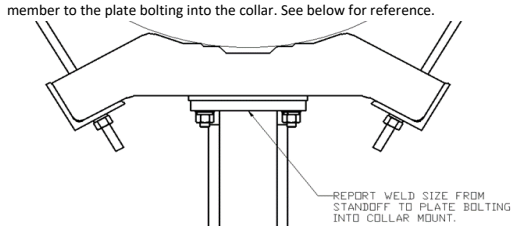
Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	335.00	Deg	Leg A:		Deg
Sector B:	90.00	Deg	Leg B:		Deg
Sector C:	210.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information		
Location:	26.00 Deg	N/A
Climbing Facility	Corrosion Type:	Good condition.
	Access:	Climbing path was unobstructed.
	Condition:	Good condition.

Please insert a photo of the mount centerline measurement here.



For T-Arms/Platforms on monopoles, record the weld size from the main standoff member to the plate bolting into the collar. See below for reference.



Sector B										
Ant_{1a}	B13 RRH4x30	12.00	7.50	20.50		108.208	32.50	-7.00		28,35
Ant_{1b}	SBNHH-1D65B	12.00	7.00	73.00		107.833	37.00	9.00	90.00	12,28
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	B25 RRH 4x30	12.00	7.50	20.50		109.583	16.00	-7.00		29,37
Ant_{3b}	SBNHH-1D65B	12.00	7.00	73.00		107.833	37.00	9.00	90.00	13,29
Ant_{3c}										
Ant_{4a}	B66a RRH 4x45	12.00	7.50	20.50		108.208	32.50	-7.00		29,40
Ant_{4b}	SBNHH-1D65B	12.00	7.00	73.00		107.833	37.00	9.00	90.00	13,29
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}	B13 RRH4x30	12.00	7.50	20.50		108.208	32.50	-7.00		30,35
Ant_{1b}	SBNHH-1D65B	12.00	7.00	73.00		107.833	37.00	9.00	210.00	17,30
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	B25 RRH 4x30	12.00	7.50	20.50		109.583	16.00	-7.00		31,37
Ant_{3b}	SBNHH-1D65B	12.00	7.00	73.00		107.833	37.00	9.00	210.00	18,31
Ant_{3c}										
Ant_{4a}	B66a RRH 4x45	12.00	7.50	20.50		108.208	32.50	-7.00		31,40
Ant_{4b}	SBNHH-1D65B	12.00	7.00	73.00		107.833	37.00	9.00	210.00	18,31
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #
1		
2		
3		
4		
5		
6		
7		
8		

Observed Obstructions to Tower Lighting System					
If the tower lighting system is being obstructed by the carrier's equipment (for example: a light nested by the antennas), please provide photos and fill in the information below.					Photo #
Description of Obstruction:					
Type of Light:		Photo #		Additional Comments:	
Lighting Technology:		Photo #			
Elevation (AGL) at base of light (Ft.):		Photo #			
Is a service loop available?		Photo #			
Is beacon installed on an extension?		Photo #			

Mapping Notes
1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)
2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness.
3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.
4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.
5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.
6. Please measure and report the size and length of all existing antenna mounting pipes.
7. Please measure and report the antenna information for all sectors.
8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

Standard Conditions
1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.

V4.0 Updated on 3-31-2021

Antenna Mount Mapping Form (PATENT PENDING)

FCC #

Tower Owner:	Blue Sky	**Mapping Date:**	6/15/2021
Site Name:	TRUMBULL S 3 CT	**Tower Type:**	Monopole
Site Number or ID:	467849	**Tower Height (Ft.):**	150
Mapping Contractor:	HUDSON DESIGN GROUP, LLC.	**Mount Elevation (Ft.):**	106.5

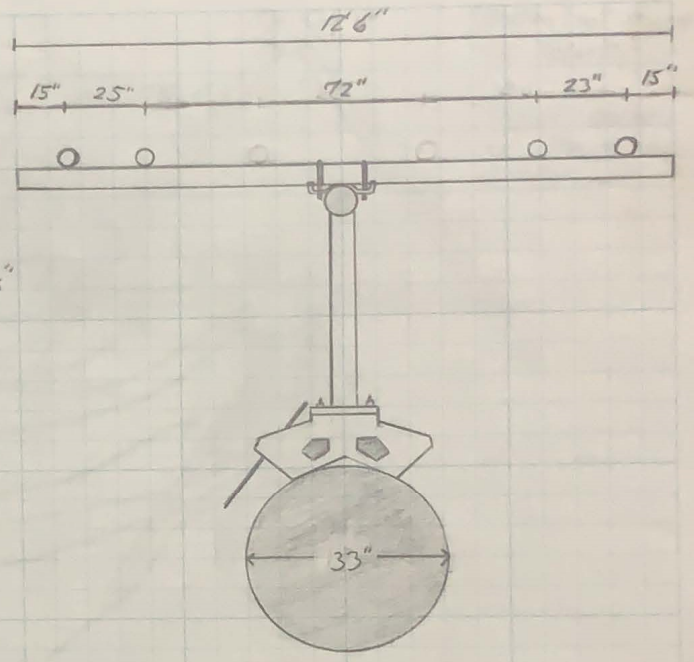
Please Insert Sketches of the Antenna Mount

DATE: 6-15-21
Project Name:
Project No.: Trumbull S 3 CT
Design By: Josh Chk'd By: Page ____ of ____

HUDSON Design Group LLC
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

Mount
℄ : 106'6"

Ant. Pipes: 2⅜"
Face Pipe: 3½"
Crossover Plate: 10"x10"x⅜"
- ubolts: 5/8"
Vertical Standoff pipe: 18"x4½"x3/16"
HSS: 4"x4"x 33"
Flange: 10"-10"x 5/8"
- Bolts: (4) 5/8"
Collar: 11½"x⅜"
- Bolts: (2) ¾"
Tower: 33"

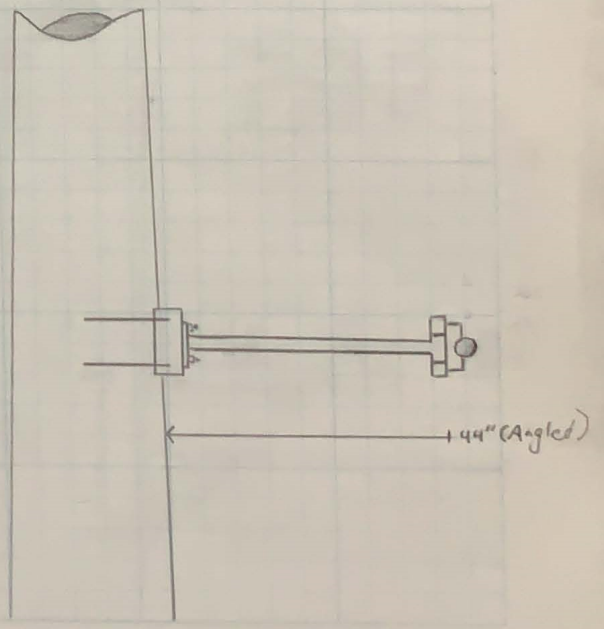


#1
JBNHH-1065B
-B13 ARH 4x30

#2
EMPTY

#3
JBNHH-1065B
-UHFA, B25 ARH 4x30

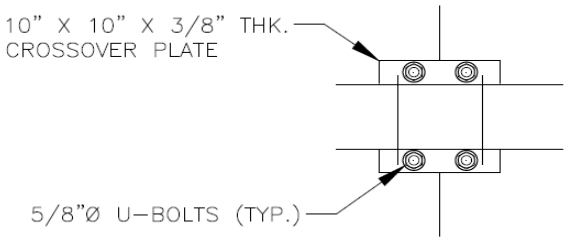
#4
JBNHH-1065B
-UHIE, BG6a ARH 4x45



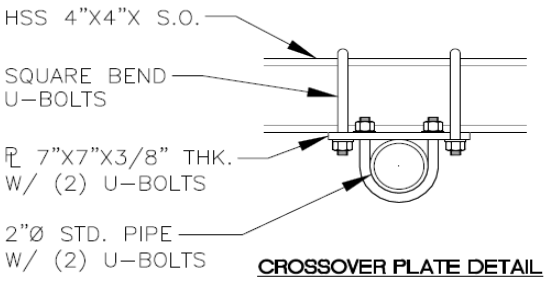
157132

(2) DVP on HSS

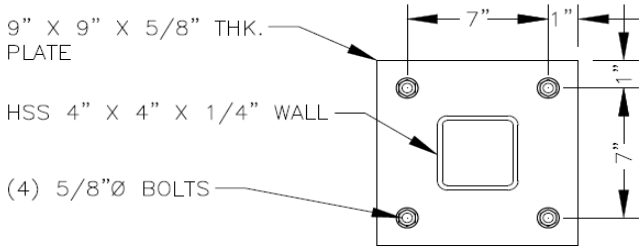
Please Insert Sketches of the Antenna Mount, cont'd



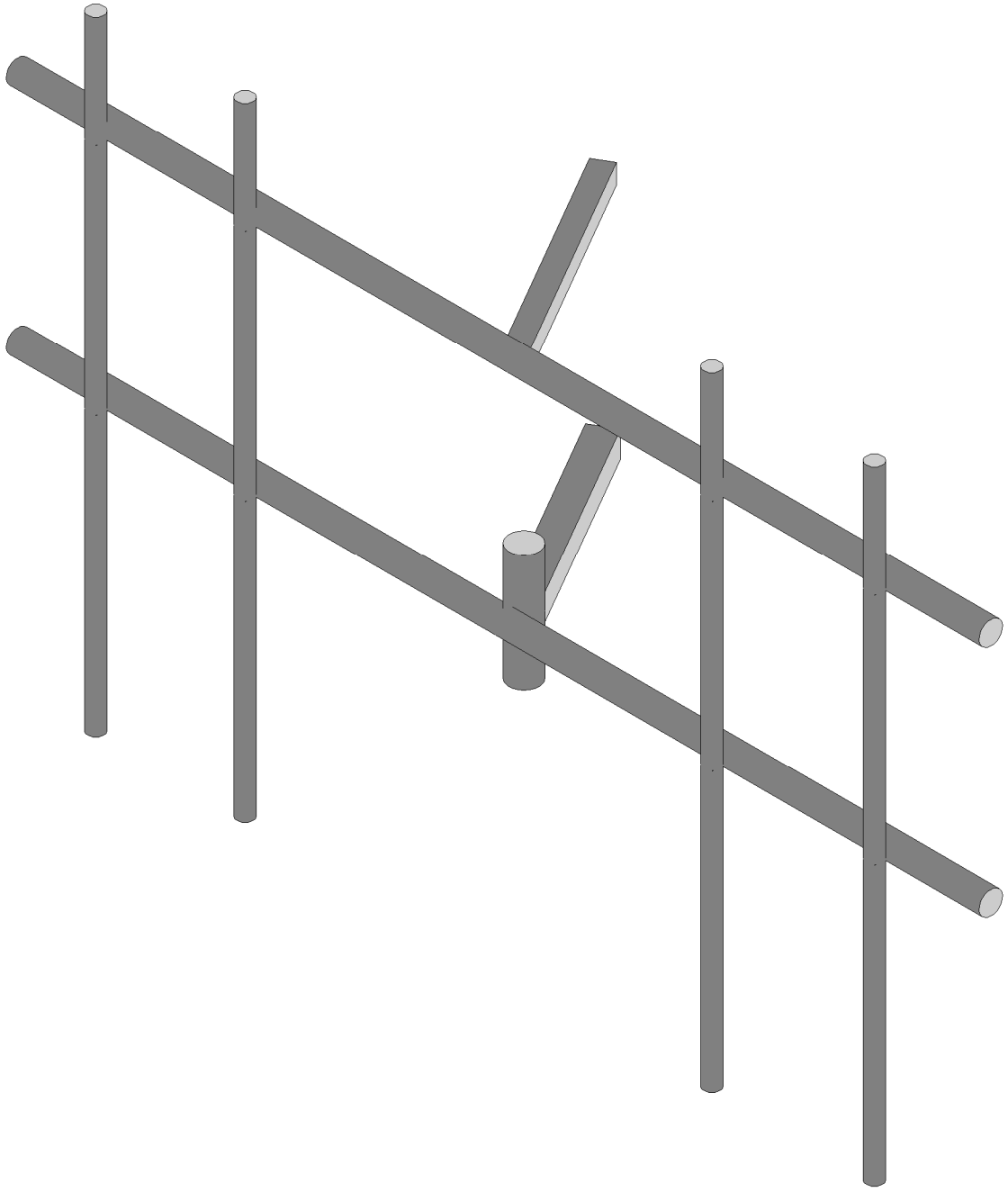
CROSSOVER PLATE DETAIL



CROSSOVER PLATE DETAIL

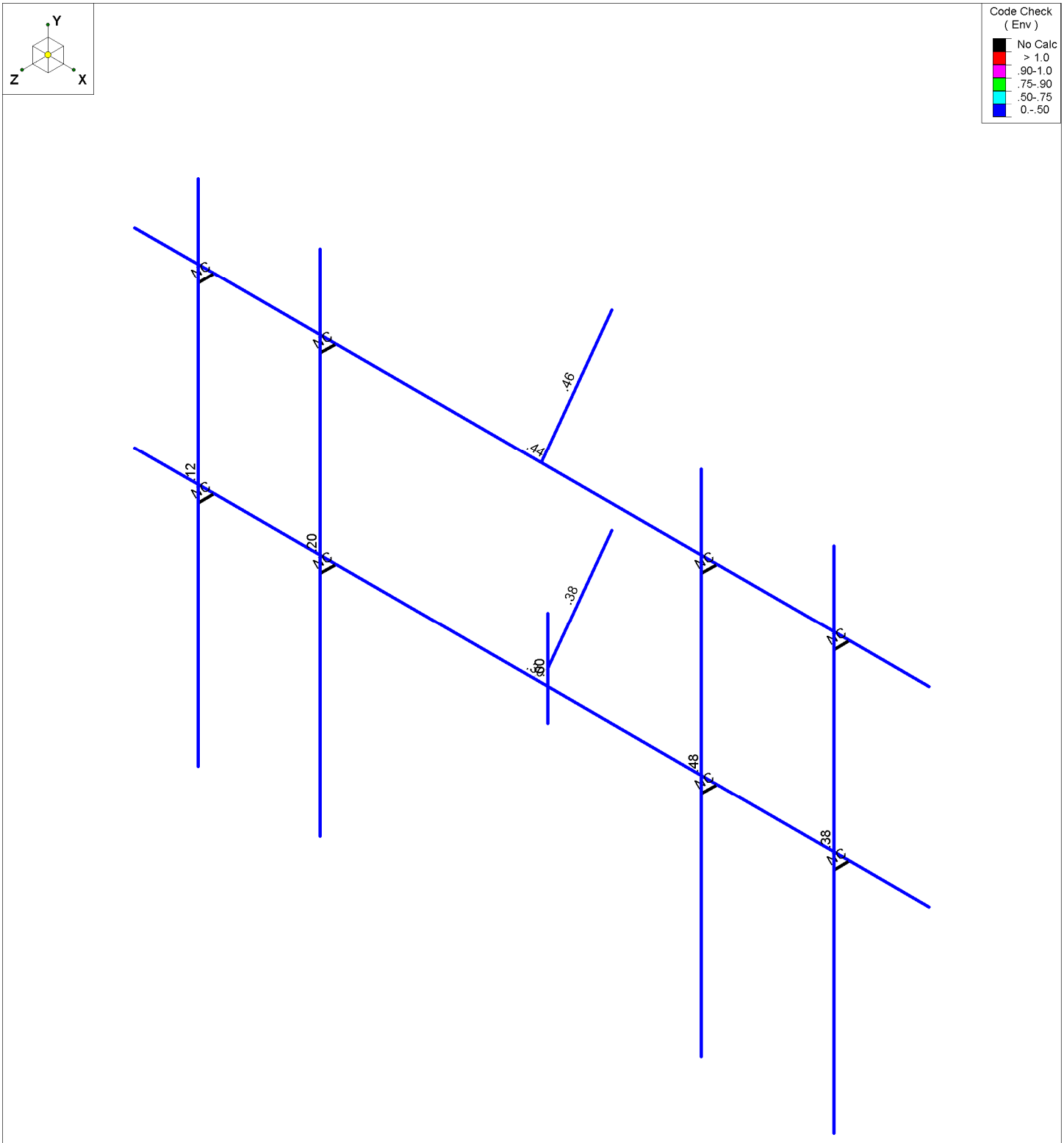


STANDOFF TO RING
MOUNT CONNECTION



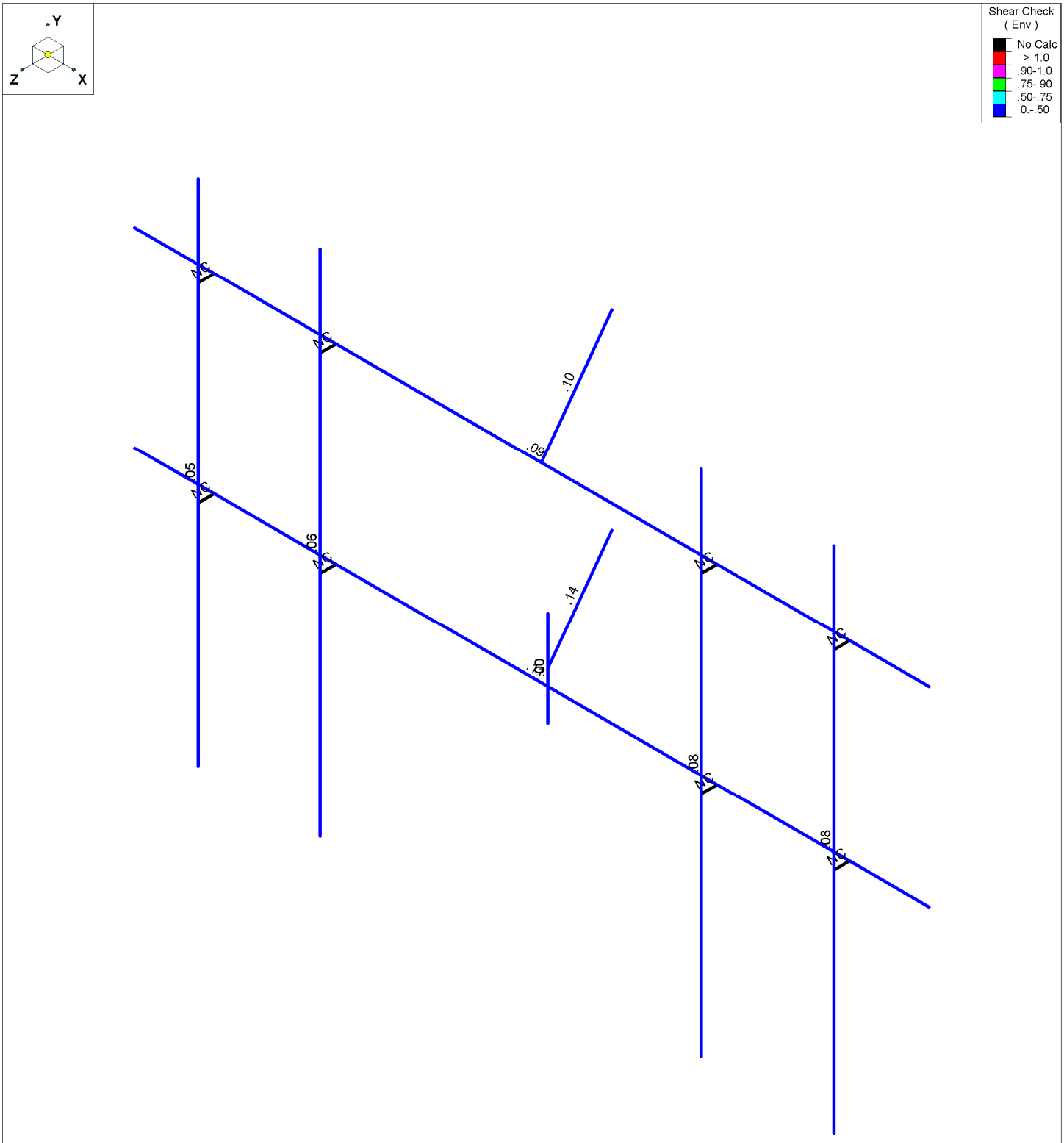
Envelope Only Solution

Maser Consulting	467849-VZW_MT_LOT_SectorA_H	SK - 1
		Apr 19, 2022 at 5:38 PM
		467849-VZW_MT_LOT_A_H.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	467849-VZW_MT_LOT_SectorA_H	SK - 2
		Apr 19, 2022 at 5:38 PM
		467849-VZW_MT_LOT_A_H.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	467849-VZW_MT_LOT_SectorA_H	SK - 3
		Apr 19, 2022 at 5:38 PM
		467849-VZW_MT_LOT_A_H.r3d

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Antenna D	None					27			
2	Antenna Di	None					27			
3	Antenna Wo (0 Deg)	None					27			
4	Antenna Wo (30 Deg)	None					27			
5	Antenna Wo (60 Deg)	None					27			
6	Antenna Wo (90 Deg)	None					27			
7	Antenna Wo (120 Deg)	None					27			
8	Antenna Wo (150 Deg)	None					27			
9	Antenna Wo (180 Deg)	None					27			
10	Antenna Wo (210 Deg)	None					27			
11	Antenna Wo (240 Deg)	None					27			
12	Antenna Wo (270 Deg)	None					27			
13	Antenna Wo (300 Deg)	None					27			
14	Antenna Wo (330 Deg)	None					27			
15	Antenna Wi (0 Deg)	None					27			
16	Antenna Wi (30 Deg)	None					27			
17	Antenna Wi (60 Deg)	None					27			
18	Antenna Wi (90 Deg)	None					27			
19	Antenna Wi (120 Deg)	None					27			
20	Antenna Wi (150 Deg)	None					27			
21	Antenna Wi (180 Deg)	None					27			
22	Antenna Wi (210 Deg)	None					27			
23	Antenna Wi (240 Deg)	None					27			
24	Antenna Wi (270 Deg)	None					27			
25	Antenna Wi (300 Deg)	None					27			
26	Antenna Wi (330 Deg)	None					27			
27	Antenna Wm (0 Deg)	None					27			
28	Antenna Wm (30 Deg)	None					27			
29	Antenna Wm (60 Deg)	None					27			
30	Antenna Wm (90 Deg)	None					27			
31	Antenna Wm (120 Deg)	None					27			
32	Antenna Wm (150 Deg)	None					27			
33	Antenna Wm (180 Deg)	None					27			
34	Antenna Wm (210 Deg)	None					27			
35	Antenna Wm (240 Deg)	None					27			
36	Antenna Wm (270 Deg)	None					27			
37	Antenna Wm (300 Deg)	None					27			
38	Antenna Wm (330 Deg)	None					27			
39	Structure D	None		-1						
40	Structure Di	None						9		
41	Structure Wo (0 Deg)	None						18		
42	Structure Wo (30 Deg)	None						18		
43	Structure Wo (60 Deg)	None						18		
44	Structure Wo (90 Deg)	None						18		
45	Structure Wo (120 D...	None						18		
46	Structure Wo (150 D...	None						18		
47	Structure Wo (180 D...	None						18		
48	Structure Wo (210 D...	None						18		
49	Structure Wo (240 D...	None						18		
50	Structure Wo (270 D...	None						18		
51	Structure Wo (300 D...	None						18		
52	Structure Wo (330 D...	None						18		
53	Structure Wi (0 Deg)	None						18		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
54	Structure Wi (30 Deg)	None						18		
55	Structure Wi (60 Deg)	None						18		
56	Structure Wi (90 Deg)	None						18		
57	Structure Wi (120 De...	None						18		
58	Structure Wi (150 De...	None						18		
59	Structure Wi (180 De...	None						18		
60	Structure Wi (210 De...	None						18		
61	Structure Wi (240 De...	None						18		
62	Structure Wi (270 De...	None						18		
63	Structure Wi (300 De...	None						18		
64	Structure Wi (330 De...	None						18		
65	Structure Wm (0 Deg)	None						18		
66	Structure Wm (30 De...	None						18		
67	Structure Wm (60 De...	None						18		
68	Structure Wm (90 De...	None						18		
69	Structure Wm (120 D...	None						18		
70	Structure Wm (150 D...	None						18		
71	Structure Wm (180 D...	None						18		
72	Structure Wm (210 D...	None						18		
73	Structure Wm (240 D...	None						18		
74	Structure Wm (270 D...	None						18		
75	Structure Wm (300 D...	None						18		
76	Structure Wm (330 D...	None						18		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					27			
82	Antenna Eh (0 Deg)	None					18			
83	Antenna Eh (90 Deg)	None					18			
84	Structure Ev	ELY								
85	Structure Eh (0 Deg)	ELZ			-.03					
86	Structure Eh (90 Deg)	ELX	.03							

Load Combinations

	Description	Sol...	PDe...	S...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...
1	1.2D+1.0Wo (0 Deg)	Yes	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0Wo (30 Deg)	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (60 Deg)	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (90 Deg)	Yes	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0Wo (120 Deg)	Yes	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0Wo (150 Deg)	Yes	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0Wo (180 Deg)	Yes	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0Wo (210 Deg)	Yes	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0Wo (240 Deg)	Yes	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0Wo (270 Deg)	Yes	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0Wo (300 Deg)	Yes	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0Wo (330 Deg)	Yes	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								
19	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1								

Load Combinations (Continued)

	Description	Sol...	PDe...	S...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...
20	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1								
21	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1								
22	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1								
23	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										
26	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										
27	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1										
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5														
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5														
51	1.4D	Yes	Y		1	1.4	39	1.4																
52	1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	1	83		ELZ	1	ELX					
53	1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5	ELZ	.866	ELX	.5				
54	1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866	ELZ	.5	ELX	.866				
55	1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	1	ELZ		ELX	1				
56	1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866	ELZ	-.5	ELX	.866				
57	1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	.5	ELZ	-.866	ELX	.5				
58	1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-1	83		ELZ	-1	ELX					
59	1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	-.5	ELZ	-.866	ELX	-.5				
60	1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866				
61	1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	-1	ELZ		ELX	-1				
62	1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.866	ELZ	.5	ELX	-.866				
63	1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5	ELZ	.866	ELX	-.5				
64	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX					
65	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5	ELZ	.866	ELX	.5				
66	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866	ELZ	.5	ELX	.866				
67	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	1	ELZ		ELX	1				
68	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866	ELZ	-.5	ELX	.866				
69	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	.5	ELZ	-.866	ELX	.5				
70	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX					
71	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	-.5	ELZ	-.866	ELX	-.5				
72	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866				
73	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX	-1				
74	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	-.866	ELZ	.5	ELX	-.866				
75	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5	ELZ	.866	ELX	-.5				

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	-1.375	0	-0.88157	0	
2	N2	0.	0	1.5	0	
3	N3	0.	.75	1.5	0	
4	N4	0.	-.75	1.5	0	
5	N5	0.	0	1.75	0	
6	N6	-6.25	0	1.75	0	
7	N7	6.25	0	1.75	0	
8	N8	-5	0	1.75	0	
9	N9	-5	0	2	0	
10	N10	-5	4.416667	2	0	
11	N11	-5	-3.583333	2	0	
12	N12	-3.083333	0	1.75	0	
13	N13	-3.083333	0	2	0	
14	N14	-3.083333	4.416667	2	0	
15	N15	-3.083333	-3.583333	2	0	
16	N16	2.916667	0	1.75	0	
17	N17	2.916667	0	2	0	
18	N18	2.916667	4.416667	2	0	
19	N19	2.916667	-3.583333	2	0	
20	N20	5	0	1.75	0	
21	N21	5	0	2	0	
22	N22	5	4.416667	2	0	
23	N23	5	-3.583333	2	0	
24	N24	-6.25	3	1.75	0	
25	N25	6.25	3	1.75	0	
26	N26	-5	3	1.75	0	
27	N27	-5	3	2	0	
28	N28	-3.083333	3	1.75	0	
29	N29	-3.083333	3	2	0	
30	N30	2.916667	3	1.75	0	
31	N31	2.916667	3	2	0	
32	N32	5	3	1.75	0	
33	N33	5	3	2	0	
34	N34	-1.375	3	-0.88157	0	
35	N35	0.144338	3	1.75	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Mount Pipe	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Face Horizontal	PIPE_3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
3	Standoff	HSS4X4X3	Beam	Tube	A500 Gr. B ...	Typical	2.58	6.21	6.21	10
4	Standoff Mast Pipe	PIPE_4.0	Beam	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
5	Secondary Horizontal	PIPE_3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
6	T-Arm	HSS3X3X4	Beam	Tube	A500 Gr. B ...	Typical	2.44	3.02	3.02	5.08

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
5	A500 Gr. B 42	29000	11154	.3	.65	.49	42	1.4	58	1.3
6	A500 Gr. B 46	29000	11154	.3	.65	.49	46	1.4	58	1.3

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N1	N2			Standoff	Beam	Tube	A500 Gr. ...	Typical
2	M2	N3	N4			Standoff Mast ...	Beam	Pipe	A53 Gr. B	Typical
3	M3	N2	N5			RIGID	None	None	RIGID	Typical
4	M4	N6	N7			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
5	M5	N8	N9			RIGID	None	None	RIGID	Typical
6	MP4A	N10	N11			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
7	M7	N12	N13			RIGID	None	None	RIGID	Typical
8	MP3A	N14	N15			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
9	M9	N16	N17			RIGID	None	None	RIGID	Typical
10	MP2A	N18	N19			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
11	M11	N20	N21			RIGID	None	None	RIGID	Typical
12	MP1A	N22	N23			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
13	M13	N24	N25			Secondary Hor...	Beam	Pipe	A53 Gr. B	Typical
14	M14	N26	N27			RIGID	None	None	RIGID	Typical
15	M15	N28	N29			RIGID	None	None	RIGID	Typical
16	M16	N30	N31			RIGID	None	None	RIGID	Typical
17	M17	N32	N33			RIGID	None	None	RIGID	Typical
18	M18	N34	N35			T-Arm	Beam	Tube	A500 Gr. ...	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu...	Kyy	Kzz	Cb	Function
1	M1	Standoff	2.75			Lbyy						Lateral
2	M2	Standoff Ma...	1.5			Lbyy						Lateral
3	M4	Face Horizo...	12.5			Lbyy						Lateral
4	MP4A	Mount Pipe	8			Lbyy						Lateral
5	MP3A	Mount Pipe	8			Lbyy						Lateral
6	MP2A	Mount Pipe	8			Lbyy						Lateral
7	MP1A	Mount Pipe	8			Lbyy						Lateral
8	M13	Secondary ...	12.5			Lbyy						Lateral
9	M18	T-Arm	3.039			Lbyy						Lateral

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-43.55	1
2	MP4A	My	-.036	1
3	MP4A	Mz	0	1
4	MP4A	Y	-43.55	3
5	MP4A	My	-.036	3
6	MP4A	Mz	0	3
7	MP1A	Y	-74.7	2.5
8	MP1A	My	.037	2.5
9	MP1A	Mz	0	2.5
10	MP2A	Y	-70.3	2.5
11	MP2A	My	.035	2.5
12	MP2A	Mz	0	2.5
13	M1	Y	-32	1
14	M1	My	0	1
15	M1	Mz	0	1
16	MP1A	Y	-20	.25
17	MP1A	My	-.01	.25
18	MP1A	Mz	.012	.25
19	MP1A	Y	-20	4.25
20	MP1A	My	-.01	4.25

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP1A	Mz	.012	4.25
22	MP1A	Y	-20	.25
23	MP1A	My	-.01	.25
24	MP1A	Mz	-.012	.25
25	MP1A	Y	-20	4.25
26	MP1A	My	-.01	4.25
27	MP1A	Mz	-.012	4.25

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-34.613	1
2	MP4A	My	-.029	1
3	MP4A	Mz	0	1
4	MP4A	Y	-34.613	3
5	MP4A	My	-.029	3
6	MP4A	Mz	0	3
7	MP1A	Y	-43.621	2.5
8	MP1A	My	.022	2.5
9	MP1A	Mz	0	2.5
10	MP2A	Y	-41.537	2.5
11	MP2A	My	.021	2.5
12	MP2A	Mz	0	2.5
13	M1	Y	-85.485	1
14	M1	My	0	1
15	M1	Mz	0	1
16	MP1A	Y	-59.359	.25
17	MP1A	My	-.03	.25
18	MP1A	Mz	.035	.25
19	MP1A	Y	-59.359	4.25
20	MP1A	My	-.03	4.25
21	MP1A	Mz	.035	4.25
22	MP1A	Y	-59.359	.25
23	MP1A	My	-.03	.25
24	MP1A	Mz	-.035	.25
25	MP1A	Y	-59.359	4.25
26	MP1A	My	-.03	4.25
27	MP1A	Mz	-.035	4.25

Member Point Loads (BLC 3 : Antenna Wo (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	-71.331	1
3	MP4A	Mx	0	1
4	MP4A	X	0	3
5	MP4A	Z	-71.331	3
6	MP4A	Mx	0	3
7	MP1A	X	0	2.5
8	MP1A	Z	-56.761	2.5
9	MP1A	Mx	0	2.5
10	MP2A	X	0	2.5
11	MP2A	Z	-56.761	2.5
12	MP2A	Mx	0	2.5
13	M1	X	0	1
14	M1	Z	-94.901	1
15	M1	Mx	0	1
16	MP1A	X	0	.25

Member Point Loads (BLC 3 : Antenna Wo (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP1A	Z	-123.842	.25
18	MP1A	Mx	-.072	.25
19	MP1A	X	0	4.25
20	MP1A	Z	-123.842	4.25
21	MP1A	Mx	-.072	4.25
22	MP1A	X	0	.25
23	MP1A	Z	-123.842	.25
24	MP1A	Mx	.072	.25
25	MP1A	X	0	4.25
26	MP1A	Z	-123.842	4.25
27	MP1A	Mx	.072	4.25

Member Point Loads (BLC 4 : Antenna Wo (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	30.24	1
2	MP4A	Z	-52.377	1
3	MP4A	Mx	-.025	1
4	MP4A	X	30.24	3
5	MP4A	Z	-52.377	3
6	MP4A	Mx	-.025	3
7	MP1A	X	26.028	2.5
8	MP1A	Z	-45.082	2.5
9	MP1A	Mx	.013	2.5
10	MP2A	X	25.601	2.5
11	MP2A	Z	-44.343	2.5
12	MP2A	Mx	.013	2.5
13	M1	X	48.719	1
14	M1	Z	-84.383	1
15	M1	Mx	0	1
16	MP1A	X	56.678	.25
17	MP1A	Z	-98.169	.25
18	MP1A	Mx	-.086	.25
19	MP1A	X	56.678	4.25
20	MP1A	Z	-98.169	4.25
21	MP1A	Mx	-.086	4.25
22	MP1A	X	56.678	.25
23	MP1A	Z	-98.169	.25
24	MP1A	Mx	.029	.25
25	MP1A	X	56.678	4.25
26	MP1A	Z	-98.169	4.25
27	MP1A	Mx	.029	4.25

Member Point Loads (BLC 5 : Antenna Wo (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	33.582	1
2	MP4A	Z	-19.389	1
3	MP4A	Mx	-.028	1
4	MP4A	X	33.582	3
5	MP4A	Z	-19.389	3
6	MP4A	Mx	-.028	3
7	MP1A	X	36.933	2.5
8	MP1A	Z	-21.323	2.5
9	MP1A	Mx	.018	2.5
10	MP2A	X	34.715	2.5
11	MP2A	Z	-20.043	2.5
12	MP2A	Mx	.017	2.5

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	M1	X	96.271	1
14	M1	Z	-55.582	1
15	M1	Mx	0	1
16	MP1A	X	80.007	.25
17	MP1A	Z	-46.192	.25
18	MP1A	Mx	-.067	.25
19	MP1A	X	80.007	4.25
20	MP1A	Z	-46.192	4.25
21	MP1A	Mx	-.067	4.25
22	MP1A	X	80.007	.25
23	MP1A	Z	-46.192	.25
24	MP1A	Mx	-.013	.25
25	MP1A	X	80.007	4.25
26	MP1A	Z	-46.192	4.25
27	MP1A	Mx	-.013	4.25

Member Point Loads (BLC 6 : Antenna Wo (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	27.926	1
2	MP4A	Z	0	1
3	MP4A	Mx	-.023	1
4	MP4A	X	27.926	3
5	MP4A	Z	0	3
6	MP4A	Mx	-.023	3
7	MP1A	X	37.942	2.5
8	MP1A	Z	0	2.5
9	MP1A	Mx	.019	2.5
10	MP2A	X	34.527	2.5
11	MP2A	Z	0	2.5
12	MP2A	Mx	.017	2.5
13	M1	X	122.354	1
14	M1	Z	0	1
15	M1	Mx	0	1
16	MP1A	X	81.898	.25
17	MP1A	Z	0	.25
18	MP1A	Mx	-.041	.25
19	MP1A	X	81.898	4.25
20	MP1A	Z	0	4.25
21	MP1A	Mx	-.041	4.25
22	MP1A	X	81.898	.25
23	MP1A	Z	0	.25
24	MP1A	Mx	-.041	.25
25	MP1A	X	81.898	4.25
26	MP1A	Z	0	4.25
27	MP1A	Mx	-.041	4.25

Member Point Loads (BLC 7 : Antenna Wo (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	33.582	1
2	MP4A	Z	19.389	1
3	MP4A	Mx	-.028	1
4	MP4A	X	33.582	3
5	MP4A	Z	19.389	3
6	MP4A	Mx	-.028	3
7	MP1A	X	36.933	2.5
8	MP1A	Z	21.323	2.5

Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP1A	Mx	.018	2.5
10	MP2A	X	34.715	2.5
11	MP2A	Z	20.043	2.5
12	MP2A	Mx	.017	2.5
13	M1	X	103.765	1
14	M1	Z	59.909	1
15	M1	Mx	0	1
16	MP1A	X	80.007	.25
17	MP1A	Z	46.192	.25
18	MP1A	Mx	-.013	.25
19	MP1A	X	80.007	4.25
20	MP1A	Z	46.192	4.25
21	MP1A	Mx	-.013	4.25
22	MP1A	X	80.007	.25
23	MP1A	Z	46.192	.25
24	MP1A	Mx	-.067	.25
25	MP1A	X	80.007	4.25
26	MP1A	Z	46.192	4.25
27	MP1A	Mx	-.067	4.25

Member Point Loads (BLC 8 : Antenna Wo (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	30.24	1
2	MP4A	Z	52.377	1
3	MP4A	Mx	-.025	1
4	MP4A	X	30.24	3
5	MP4A	Z	52.377	3
6	MP4A	Mx	-.025	3
7	MP1A	X	26.028	2.5
8	MP1A	Z	45.082	2.5
9	MP1A	Mx	.013	2.5
10	MP2A	X	25.601	2.5
11	MP2A	Z	44.343	2.5
12	MP2A	Mx	.013	2.5
13	M1	X	53.045	1
14	M1	Z	91.877	1
15	M1	Mx	0	1
16	MP1A	X	56.678	.25
17	MP1A	Z	98.169	.25
18	MP1A	Mx	.029	.25
19	MP1A	X	56.678	4.25
20	MP1A	Z	98.169	4.25
21	MP1A	Mx	.029	4.25
22	MP1A	X	56.678	.25
23	MP1A	Z	98.169	.25
24	MP1A	Mx	-.086	.25
25	MP1A	X	56.678	4.25
26	MP1A	Z	98.169	4.25
27	MP1A	Mx	-.086	4.25

Member Point Loads (BLC 9 : Antenna Wo (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	71.331	1
3	MP4A	Mx	0	1
4	MP4A	X	0	3

Member Point Loads (BLC 9 : Antenna Wo (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP4A	Z	71.331	3
6	MP4A	Mx	0	3
7	MP1A	X	0	2.5
8	MP1A	Z	56.761	2.5
9	MP1A	Mx	0	2.5
10	MP2A	X	0	2.5
11	MP2A	Z	56.761	2.5
12	MP2A	Mx	0	2.5
13	M1	X	0	1
14	M1	Z	94.901	1
15	M1	Mx	0	1
16	MP1A	X	0	.25
17	MP1A	Z	123.842	.25
18	MP1A	Mx	.072	.25
19	MP1A	X	0	4.25
20	MP1A	Z	123.842	4.25
21	MP1A	Mx	.072	4.25
22	MP1A	X	0	.25
23	MP1A	Z	123.842	.25
24	MP1A	Mx	-.072	.25
25	MP1A	X	0	4.25
26	MP1A	Z	123.842	4.25
27	MP1A	Mx	-.072	4.25

Member Point Loads (BLC 10 : Antenna Wo (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-30.24	1
2	MP4A	Z	52.377	1
3	MP4A	Mx	.025	1
4	MP4A	X	-30.24	3
5	MP4A	Z	52.377	3
6	MP4A	Mx	.025	3
7	MP1A	X	-26.028	2.5
8	MP1A	Z	45.082	2.5
9	MP1A	Mx	-.013	2.5
10	MP2A	X	-25.601	2.5
11	MP2A	Z	44.343	2.5
12	MP2A	Mx	-.013	2.5
13	M1	X	-48.719	1
14	M1	Z	84.383	1
15	M1	Mx	0	1
16	MP1A	X	-56.678	.25
17	MP1A	Z	98.169	.25
18	MP1A	Mx	.086	.25
19	MP1A	X	-56.678	4.25
20	MP1A	Z	98.169	4.25
21	MP1A	Mx	.086	4.25
22	MP1A	X	-56.678	.25
23	MP1A	Z	98.169	.25
24	MP1A	Mx	-.029	.25
25	MP1A	X	-56.678	4.25
26	MP1A	Z	98.169	4.25
27	MP1A	Mx	-.029	4.25

Member Point Loads (BLC 11 : Antenna Wo (240 Deg))

Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]

Member Point Loads (BLC 11 : Antenna Wo (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-33.582	1
2	MP4A	Z	19.389	1
3	MP4A	Mx	.028	1
4	MP4A	X	-33.582	3
5	MP4A	Z	19.389	3
6	MP4A	Mx	.028	3
7	MP1A	X	-36.933	2.5
8	MP1A	Z	21.323	2.5
9	MP1A	Mx	-.018	2.5
10	MP2A	X	-34.715	2.5
11	MP2A	Z	20.043	2.5
12	MP2A	Mx	-.017	2.5
13	M1	X	-96.271	1
14	M1	Z	55.582	1
15	M1	Mx	0	1
16	MP1A	X	-80.007	.25
17	MP1A	Z	46.192	.25
18	MP1A	Mx	.067	.25
19	MP1A	X	-80.007	4.25
20	MP1A	Z	46.192	4.25
21	MP1A	Mx	.067	4.25
22	MP1A	X	-80.007	.25
23	MP1A	Z	46.192	.25
24	MP1A	Mx	.013	.25
25	MP1A	X	-80.007	4.25
26	MP1A	Z	46.192	4.25
27	MP1A	Mx	.013	4.25

Member Point Loads (BLC 12 : Antenna Wo (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-27.926	1
2	MP4A	Z	0	1
3	MP4A	Mx	.023	1
4	MP4A	X	-27.926	3
5	MP4A	Z	0	3
6	MP4A	Mx	.023	3
7	MP1A	X	-37.942	2.5
8	MP1A	Z	0	2.5
9	MP1A	Mx	-.019	2.5
10	MP2A	X	-34.527	2.5
11	MP2A	Z	0	2.5
12	MP2A	Mx	-.017	2.5
13	M1	X	-122.354	1
14	M1	Z	0	1
15	M1	Mx	0	1
16	MP1A	X	-81.898	.25
17	MP1A	Z	0	.25
18	MP1A	Mx	.041	.25
19	MP1A	X	-81.898	4.25
20	MP1A	Z	0	4.25
21	MP1A	Mx	.041	4.25
22	MP1A	X	-81.898	.25
23	MP1A	Z	0	.25
24	MP1A	Mx	.041	.25
25	MP1A	X	-81.898	4.25
26	MP1A	Z	0	4.25

Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP1A	Mx	.041	4.25

Member Point Loads (BLC 13 : Antenna Wo (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-33.582	1
2	MP4A	Z	-19.389	1
3	MP4A	Mx	.028	1
4	MP4A	X	-33.582	3
5	MP4A	Z	-19.389	3
6	MP4A	Mx	.028	3
7	MP1A	X	-36.933	2.5
8	MP1A	Z	-21.323	2.5
9	MP1A	Mx	-.018	2.5
10	MP2A	X	-34.715	2.5
11	MP2A	Z	-20.043	2.5
12	MP2A	Mx	-.017	2.5
13	M1	X	-103.765	1
14	M1	Z	-59.909	1
15	M1	Mx	0	1
16	MP1A	X	-80.007	.25
17	MP1A	Z	-46.192	.25
18	MP1A	Mx	.013	.25
19	MP1A	X	-80.007	4.25
20	MP1A	Z	-46.192	4.25
21	MP1A	Mx	.013	4.25
22	MP1A	X	-80.007	.25
23	MP1A	Z	-46.192	.25
24	MP1A	Mx	.067	.25
25	MP1A	X	-80.007	4.25
26	MP1A	Z	-46.192	4.25
27	MP1A	Mx	.067	4.25

Member Point Loads (BLC 14 : Antenna Wo (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-30.24	1
2	MP4A	Z	-52.377	1
3	MP4A	Mx	.025	1
4	MP4A	X	-30.24	3
5	MP4A	Z	-52.377	3
6	MP4A	Mx	.025	3
7	MP1A	X	-26.028	2.5
8	MP1A	Z	-45.082	2.5
9	MP1A	Mx	-.013	2.5
10	MP2A	X	-25.601	2.5
11	MP2A	Z	-44.343	2.5
12	MP2A	Mx	-.013	2.5
13	M1	X	-53.045	1
14	M1	Z	-91.877	1
15	M1	Mx	0	1
16	MP1A	X	-56.678	.25
17	MP1A	Z	-98.169	.25
18	MP1A	Mx	-.029	.25
19	MP1A	X	-56.678	4.25
20	MP1A	Z	-98.169	4.25
21	MP1A	Mx	-.029	4.25
22	MP1A	X	-56.678	.25

Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP1A	Z	-98.169	.25
24	MP1A	Mx	.086	.25
25	MP1A	X	-56.678	4.25
26	MP1A	Z	-98.169	4.25
27	MP1A	Mx	.086	4.25

Member Point Loads (BLC 15 : Antenna Wi (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	-14.425	1
3	MP4A	Mx	0	1
4	MP4A	X	0	3
5	MP4A	Z	-14.425	3
6	MP4A	Mx	0	3
7	MP1A	X	0	2.5
8	MP1A	Z	-12.14	2.5
9	MP1A	Mx	0	2.5
10	MP2A	X	0	2.5
11	MP2A	Z	-12.14	2.5
12	MP2A	Mx	0	2.5
13	M1	X	0	1
14	M1	Z	-19.689	1
15	M1	Mx	0	1
16	MP1A	X	0	.25
17	MP1A	Z	-24.459	.25
18	MP1A	Mx	-.014	.25
19	MP1A	X	0	4.25
20	MP1A	Z	-24.459	4.25
21	MP1A	Mx	-.014	4.25
22	MP1A	X	0	.25
23	MP1A	Z	-24.459	.25
24	MP1A	Mx	.014	.25
25	MP1A	X	0	4.25
26	MP1A	Z	-24.459	4.25
27	MP1A	Mx	.014	4.25

Member Point Loads (BLC 16 : Antenna Wi (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	6.176	1
2	MP4A	Z	-10.697	1
3	MP4A	Mx	-.005	1
4	MP4A	X	6.176	3
5	MP4A	Z	-10.697	3
6	MP4A	Mx	-.005	3
7	MP1A	X	5.607	2.5
8	MP1A	Z	-9.712	2.5
9	MP1A	Mx	.003	2.5
10	MP2A	X	5.524	2.5
11	MP2A	Z	-9.568	2.5
12	MP2A	Mx	.003	2.5
13	M1	X	10.081	1
14	M1	Z	-17.461	1
15	M1	Mx	0	1
16	MP1A	X	11.279	.25
17	MP1A	Z	-19.535	.25
18	MP1A	Mx	-.017	.25

Member Point Loads (BLC 16 : Antenna Wi (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
19	MP1A	X	11.279	4.25
20	MP1A	Z	-19.535	4.25
21	MP1A	Mx	-.017	4.25
22	MP1A	X	11.279	.25
23	MP1A	Z	-19.535	.25
24	MP1A	Mx	.006	.25
25	MP1A	X	11.279	4.25
26	MP1A	Z	-19.535	4.25
27	MP1A	Mx	.006	4.25

Member Point Loads (BLC 17 : Antenna Wi (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	7.105	1
2	MP4A	Z	-4.102	1
3	MP4A	Mx	-.006	1
4	MP4A	X	7.105	3
5	MP4A	Z	-4.102	3
6	MP4A	Mx	-.006	3
7	MP1A	X	8.108	2.5
8	MP1A	Z	-4.681	2.5
9	MP1A	Mx	.004	2.5
10	MP2A	X	7.675	2.5
11	MP2A	Z	-4.431	2.5
12	MP2A	Mx	.004	2.5
13	M1	X	19.682	1
14	M1	Z	-11.363	1
15	M1	Mx	0	1
16	MP1A	X	16.241	.25
17	MP1A	Z	-9.377	.25
18	MP1A	Mx	-.014	.25
19	MP1A	X	16.241	4.25
20	MP1A	Z	-9.377	4.25
21	MP1A	Mx	-.014	4.25
22	MP1A	X	16.241	.25
23	MP1A	Z	-9.377	.25
24	MP1A	Mx	-.003	.25
25	MP1A	X	16.241	4.25
26	MP1A	Z	-9.377	4.25
27	MP1A	Mx	-.003	4.25

Member Point Loads (BLC 18 : Antenna Wi (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	6.131	1
2	MP4A	Z	0	1
3	MP4A	Mx	-.005	1
4	MP4A	X	6.131	3
5	MP4A	Z	0	3
6	MP4A	Mx	-.005	3
7	MP1A	X	8.436	2.5
8	MP1A	Z	0	2.5
9	MP1A	Mx	.004	2.5
10	MP2A	X	7.77	2.5
11	MP2A	Z	0	2.5
12	MP2A	Mx	.004	2.5
13	M1	X	24.817	1
14	M1	Z	0	1

Member Point Loads (BLC 18 : Antenna Wi (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
15	M1	Mx	0	1
16	MP1A	X	16.852	.25
17	MP1A	Z	0	.25
18	MP1A	Mx	-.008	.25
19	MP1A	X	16.852	4.25
20	MP1A	Z	0	4.25
21	MP1A	Mx	-.008	4.25
22	MP1A	X	16.852	.25
23	MP1A	Z	0	.25
24	MP1A	Mx	-.008	.25
25	MP1A	X	16.852	4.25
26	MP1A	Z	0	4.25
27	MP1A	Mx	-.008	4.25

Member Point Loads (BLC 19 : Antenna Wi (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	7.105	1
2	MP4A	Z	4.102	1
3	MP4A	Mx	-.006	1
4	MP4A	X	7.105	3
5	MP4A	Z	4.102	3
6	MP4A	Mx	-.006	3
7	MP1A	X	8.108	2.5
8	MP1A	Z	4.681	2.5
9	MP1A	Mx	.004	2.5
10	MP2A	X	7.675	2.5
11	MP2A	Z	4.431	2.5
12	MP2A	Mx	.004	2.5
13	M1	X	21.082	1
14	M1	Z	12.172	1
15	M1	Mx	0	1
16	MP1A	X	16.241	.25
17	MP1A	Z	9.377	.25
18	MP1A	Mx	-.003	.25
19	MP1A	X	16.241	4.25
20	MP1A	Z	9.377	4.25
21	MP1A	Mx	-.003	4.25
22	MP1A	X	16.241	.25
23	MP1A	Z	9.377	.25
24	MP1A	Mx	-.014	.25
25	MP1A	X	16.241	4.25
26	MP1A	Z	9.377	4.25
27	MP1A	Mx	-.014	4.25

Member Point Loads (BLC 20 : Antenna Wi (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	6.176	1
2	MP4A	Z	10.697	1
3	MP4A	Mx	-.005	1
4	MP4A	X	6.176	3
5	MP4A	Z	10.697	3
6	MP4A	Mx	-.005	3
7	MP1A	X	5.607	2.5
8	MP1A	Z	9.712	2.5
9	MP1A	Mx	.003	2.5
10	MP2A	X	5.524	2.5

Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP2A	Z	9.568	2.5
12	MP2A	Mx	.003	2.5
13	M1	X	10.889	1
14	M1	Z	18.861	1
15	M1	Mx	0	1
16	MP1A	X	11.279	.25
17	MP1A	Z	19.535	.25
18	MP1A	Mx	.006	.25
19	MP1A	X	11.279	4.25
20	MP1A	Z	19.535	4.25
21	MP1A	Mx	.006	4.25
22	MP1A	X	11.279	.25
23	MP1A	Z	19.535	.25
24	MP1A	Mx	-.017	.25
25	MP1A	X	11.279	4.25
26	MP1A	Z	19.535	4.25
27	MP1A	Mx	-.017	4.25

Member Point Loads (BLC 21 : Antenna Wi (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	14.425	1
3	MP4A	Mx	0	1
4	MP4A	X	0	3
5	MP4A	Z	14.425	3
6	MP4A	Mx	0	3
7	MP1A	X	0	2.5
8	MP1A	Z	12.14	2.5
9	MP1A	Mx	0	2.5
10	MP2A	X	0	2.5
11	MP2A	Z	12.14	2.5
12	MP2A	Mx	0	2.5
13	M1	X	0	1
14	M1	Z	19.689	1
15	M1	Mx	0	1
16	MP1A	X	0	.25
17	MP1A	Z	24.459	.25
18	MP1A	Mx	.014	.25
19	MP1A	X	0	4.25
20	MP1A	Z	24.459	4.25
21	MP1A	Mx	.014	4.25
22	MP1A	X	0	.25
23	MP1A	Z	24.459	.25
24	MP1A	Mx	-.014	.25
25	MP1A	X	0	4.25
26	MP1A	Z	24.459	4.25
27	MP1A	Mx	-.014	4.25

Member Point Loads (BLC 22 : Antenna Wi (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-6.176	1
2	MP4A	Z	10.697	1
3	MP4A	Mx	.005	1
4	MP4A	X	-6.176	3
5	MP4A	Z	10.697	3
6	MP4A	Mx	.005	3

Member Point Loads (BLC 22 : Antenna Wi (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP1A	X	-5.607	2.5
8	MP1A	Z	9.712	2.5
9	MP1A	Mx	-.003	2.5
10	MP2A	X	-5.524	2.5
11	MP2A	Z	9.568	2.5
12	MP2A	Mx	-.003	2.5
13	M1	X	-10.081	1
14	M1	Z	17.461	1
15	M1	Mx	0	1
16	MP1A	X	-11.279	.25
17	MP1A	Z	19.535	.25
18	MP1A	Mx	.017	.25
19	MP1A	X	-11.279	4.25
20	MP1A	Z	19.535	4.25
21	MP1A	Mx	.017	4.25
22	MP1A	X	-11.279	.25
23	MP1A	Z	19.535	.25
24	MP1A	Mx	-.006	.25
25	MP1A	X	-11.279	4.25
26	MP1A	Z	19.535	4.25
27	MP1A	Mx	-.006	4.25

Member Point Loads (BLC 23 : Antenna Wi (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-7.105	1
2	MP4A	Z	4.102	1
3	MP4A	Mx	.006	1
4	MP4A	X	-7.105	3
5	MP4A	Z	4.102	3
6	MP4A	Mx	.006	3
7	MP1A	X	-8.108	2.5
8	MP1A	Z	4.681	2.5
9	MP1A	Mx	-.004	2.5
10	MP2A	X	-7.675	2.5
11	MP2A	Z	4.431	2.5
12	MP2A	Mx	-.004	2.5
13	M1	X	-19.682	1
14	M1	Z	11.363	1
15	M1	Mx	0	1
16	MP1A	X	-16.241	.25
17	MP1A	Z	9.377	.25
18	MP1A	Mx	.014	.25
19	MP1A	X	-16.241	4.25
20	MP1A	Z	9.377	4.25
21	MP1A	Mx	.014	4.25
22	MP1A	X	-16.241	.25
23	MP1A	Z	9.377	.25
24	MP1A	Mx	.003	.25
25	MP1A	X	-16.241	4.25
26	MP1A	Z	9.377	4.25
27	MP1A	Mx	.003	4.25

Member Point Loads (BLC 24 : Antenna Wi (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-6.131	1
2	MP4A	Z	0	1

Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
3	MP4A	Mx	.005	1
4	MP4A	X	-6.131	3
5	MP4A	Z	0	3
6	MP4A	Mx	.005	3
7	MP1A	X	-8.436	2.5
8	MP1A	Z	0	2.5
9	MP1A	Mx	-.004	2.5
10	MP2A	X	-7.77	2.5
11	MP2A	Z	0	2.5
12	MP2A	Mx	-.004	2.5
13	M1	X	-24.817	1
14	M1	Z	0	1
15	M1	Mx	0	1
16	MP1A	X	-16.852	.25
17	MP1A	Z	0	.25
18	MP1A	Mx	.008	.25
19	MP1A	X	-16.852	4.25
20	MP1A	Z	0	4.25
21	MP1A	Mx	.008	4.25
22	MP1A	X	-16.852	.25
23	MP1A	Z	0	.25
24	MP1A	Mx	.008	.25
25	MP1A	X	-16.852	4.25
26	MP1A	Z	0	4.25
27	MP1A	Mx	.008	4.25

Member Point Loads (BLC 25 : Antenna Wi (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-7.105	1
2	MP4A	Z	-4.102	1
3	MP4A	Mx	.006	1
4	MP4A	X	-7.105	3
5	MP4A	Z	-4.102	3
6	MP4A	Mx	.006	3
7	MP1A	X	-8.108	2.5
8	MP1A	Z	-4.681	2.5
9	MP1A	Mx	-.004	2.5
10	MP2A	X	-7.675	2.5
11	MP2A	Z	-4.431	2.5
12	MP2A	Mx	-.004	2.5
13	M1	X	-21.082	1
14	M1	Z	-12.172	1
15	M1	Mx	0	1
16	MP1A	X	-16.241	.25
17	MP1A	Z	-9.377	.25
18	MP1A	Mx	.003	.25
19	MP1A	X	-16.241	4.25
20	MP1A	Z	-9.377	4.25
21	MP1A	Mx	.003	4.25
22	MP1A	X	-16.241	.25
23	MP1A	Z	-9.377	.25
24	MP1A	Mx	.014	.25
25	MP1A	X	-16.241	4.25
26	MP1A	Z	-9.377	4.25
27	MP1A	Mx	.014	4.25

Member Point Loads (BLC 26 : Antenna Wi (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-6.176	1
2	MP4A	Z	-10.697	1
3	MP4A	Mx	.005	1
4	MP4A	X	-6.176	3
5	MP4A	Z	-10.697	3
6	MP4A	Mx	.005	3
7	MP1A	X	-5.607	2.5
8	MP1A	Z	-9.712	2.5
9	MP1A	Mx	-.003	2.5
10	MP2A	X	-5.524	2.5
11	MP2A	Z	-9.568	2.5
12	MP2A	Mx	-.003	2.5
13	M1	X	-10.889	1
14	M1	Z	-18.861	1
15	M1	Mx	0	1
16	MP1A	X	-11.279	.25
17	MP1A	Z	-19.535	.25
18	MP1A	Mx	-.006	.25
19	MP1A	X	-11.279	4.25
20	MP1A	Z	-19.535	4.25
21	MP1A	Mx	-.006	4.25
22	MP1A	X	-11.279	.25
23	MP1A	Z	-19.535	.25
24	MP1A	Mx	.017	.25
25	MP1A	X	-11.279	4.25
26	MP1A	Z	-19.535	4.25
27	MP1A	Mx	.017	4.25

Member Point Loads (BLC 27 : Antenna Wm (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	-4.611	1
3	MP4A	Mx	0	1
4	MP4A	X	0	3
5	MP4A	Z	-4.611	3
6	MP4A	Mx	0	3
7	MP1A	X	0	2.5
8	MP1A	Z	-3.669	2.5
9	MP1A	Mx	0	2.5
10	MP2A	X	0	2.5
11	MP2A	Z	-3.669	2.5
12	MP2A	Mx	0	2.5
13	M1	X	0	1
14	M1	Z	-6.134	1
15	M1	Mx	0	1
16	MP1A	X	0	.25
17	MP1A	Z	-8.005	.25
18	MP1A	Mx	-.005	.25
19	MP1A	X	0	4.25
20	MP1A	Z	-8.005	4.25
21	MP1A	Mx	-.005	4.25
22	MP1A	X	0	.25
23	MP1A	Z	-8.005	.25
24	MP1A	Mx	.005	.25
25	MP1A	X	0	4.25
26	MP1A	Z	-8.005	4.25

Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP1A	Mx	.005	4.25

Member Point Loads (BLC 28 : Antenna Wm (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.955	1
2	MP4A	Z	-3.385	1
3	MP4A	Mx	-.002	1
4	MP4A	X	1.955	3
5	MP4A	Z	-3.385	3
6	MP4A	Mx	-.002	3
7	MP1A	X	1.682	2.5
8	MP1A	Z	-2.914	2.5
9	MP1A	Mx	.000841	2.5
10	MP2A	X	1.655	2.5
11	MP2A	Z	-2.866	2.5
12	MP2A	Mx	.000828	2.5
13	M1	X	3.149	1
14	M1	Z	-5.454	1
15	M1	Mx	0	1
16	MP1A	X	3.663	.25
17	MP1A	Z	-6.345	.25
18	MP1A	Mx	-.006	.25
19	MP1A	X	3.663	4.25
20	MP1A	Z	-6.345	4.25
21	MP1A	Mx	-.006	4.25
22	MP1A	X	3.663	.25
23	MP1A	Z	-6.345	.25
24	MP1A	Mx	.002	.25
25	MP1A	X	3.663	4.25
26	MP1A	Z	-6.345	4.25
27	MP1A	Mx	.002	4.25

Member Point Loads (BLC 29 : Antenna Wm (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.171	1
2	MP4A	Z	-1.253	1
3	MP4A	Mx	-.002	1
4	MP4A	X	2.171	3
5	MP4A	Z	-1.253	3
6	MP4A	Mx	-.002	3
7	MP1A	X	2.387	2.5
8	MP1A	Z	-1.378	2.5
9	MP1A	Mx	.001	2.5
10	MP2A	X	2.244	2.5
11	MP2A	Z	-1.295	2.5
12	MP2A	Mx	.001	2.5
13	M1	X	6.223	1
14	M1	Z	-3.593	1
15	M1	Mx	0	1
16	MP1A	X	5.171	.25
17	MP1A	Z	-2.986	.25
18	MP1A	Mx	-.004	.25
19	MP1A	X	5.171	4.25
20	MP1A	Z	-2.986	4.25
21	MP1A	Mx	-.004	4.25
22	MP1A	X	5.171	.25

Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP1A	Z	-2.986	.25
24	MP1A	Mx	-.000844	.25
25	MP1A	X	5.171	4.25
26	MP1A	Z	-2.986	4.25
27	MP1A	Mx	-.000844	4.25

Member Point Loads (BLC 30 : Antenna Wm (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.805	1
2	MP4A	Z	0	1
3	MP4A	Mx	-.002	1
4	MP4A	X	1.805	3
5	MP4A	Z	0	3
6	MP4A	Mx	-.002	3
7	MP1A	X	2.452	2.5
8	MP1A	Z	0	2.5
9	MP1A	Mx	.001	2.5
10	MP2A	X	2.232	2.5
11	MP2A	Z	0	2.5
12	MP2A	Mx	.001	2.5
13	M1	X	7.909	1
14	M1	Z	0	1
15	M1	Mx	0	1
16	MP1A	X	5.294	.25
17	MP1A	Z	0	.25
18	MP1A	Mx	-.003	.25
19	MP1A	X	5.294	4.25
20	MP1A	Z	0	4.25
21	MP1A	Mx	-.003	4.25
22	MP1A	X	5.294	.25
23	MP1A	Z	0	.25
24	MP1A	Mx	-.003	.25
25	MP1A	X	5.294	4.25
26	MP1A	Z	0	4.25
27	MP1A	Mx	-.003	4.25

Member Point Loads (BLC 31 : Antenna Wm (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.171	1
2	MP4A	Z	1.253	1
3	MP4A	Mx	-.002	1
4	MP4A	X	2.171	3
5	MP4A	Z	1.253	3
6	MP4A	Mx	-.002	3
7	MP1A	X	2.387	2.5
8	MP1A	Z	1.378	2.5
9	MP1A	Mx	.001	2.5
10	MP2A	X	2.244	2.5
11	MP2A	Z	1.295	2.5
12	MP2A	Mx	.001	2.5
13	M1	X	6.707	1
14	M1	Z	3.872	1
15	M1	Mx	0	1
16	MP1A	X	5.171	.25
17	MP1A	Z	2.986	.25
18	MP1A	Mx	-.000844	.25

Member Point Loads (BLC 31 : Antenna Wm (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
19	MP1A	X	5.171	4.25
20	MP1A	Z	2.986	4.25
21	MP1A	Mx	-.000844	4.25
22	MP1A	X	5.171	.25
23	MP1A	Z	2.986	.25
24	MP1A	Mx	-.004	.25
25	MP1A	X	5.171	4.25
26	MP1A	Z	2.986	4.25
27	MP1A	Mx	-.004	4.25

Member Point Loads (BLC 32 : Antenna Wm (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.955	1
2	MP4A	Z	3.385	1
3	MP4A	Mx	-.002	1
4	MP4A	X	1.955	3
5	MP4A	Z	3.385	3
6	MP4A	Mx	-.002	3
7	MP1A	X	1.682	2.5
8	MP1A	Z	2.914	2.5
9	MP1A	Mx	.000841	2.5
10	MP2A	X	1.655	2.5
11	MP2A	Z	2.866	2.5
12	MP2A	Mx	.000828	2.5
13	M1	X	3.429	1
14	M1	Z	5.939	1
15	M1	Mx	0	1
16	MP1A	X	3.663	.25
17	MP1A	Z	6.345	.25
18	MP1A	Mx	.002	.25
19	MP1A	X	3.663	4.25
20	MP1A	Z	6.345	4.25
21	MP1A	Mx	.002	4.25
22	MP1A	X	3.663	.25
23	MP1A	Z	6.345	.25
24	MP1A	Mx	-.006	.25
25	MP1A	X	3.663	4.25
26	MP1A	Z	6.345	4.25
27	MP1A	Mx	-.006	4.25

Member Point Loads (BLC 33 : Antenna Wm (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	4.611	1
3	MP4A	Mx	0	1
4	MP4A	X	0	3
5	MP4A	Z	4.611	3
6	MP4A	Mx	0	3
7	MP1A	X	0	2.5
8	MP1A	Z	3.669	2.5
9	MP1A	Mx	0	2.5
10	MP2A	X	0	2.5
11	MP2A	Z	3.669	2.5
12	MP2A	Mx	0	2.5
13	M1	X	0	1
14	M1	Z	6.134	1

Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
15	M1	Mx	0	1
16	MP1A	X	0	.25
17	MP1A	Z	8.005	.25
18	MP1A	Mx	.005	.25
19	MP1A	X	0	4.25
20	MP1A	Z	8.005	4.25
21	MP1A	Mx	.005	4.25
22	MP1A	X	0	.25
23	MP1A	Z	8.005	.25
24	MP1A	Mx	-.005	.25
25	MP1A	X	0	4.25
26	MP1A	Z	8.005	4.25
27	MP1A	Mx	-.005	4.25

Member Point Loads (BLC 34 : Antenna Wm (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-1.955	1
2	MP4A	Z	3.385	1
3	MP4A	Mx	.002	1
4	MP4A	X	-1.955	3
5	MP4A	Z	3.385	3
6	MP4A	Mx	.002	3
7	MP1A	X	-1.682	2.5
8	MP1A	Z	2.914	2.5
9	MP1A	Mx	-.000841	2.5
10	MP2A	X	-1.655	2.5
11	MP2A	Z	2.866	2.5
12	MP2A	Mx	-.000828	2.5
13	M1	X	-3.149	1
14	M1	Z	5.454	1
15	M1	Mx	0	1
16	MP1A	X	-3.663	.25
17	MP1A	Z	6.345	.25
18	MP1A	Mx	.006	.25
19	MP1A	X	-3.663	4.25
20	MP1A	Z	6.345	4.25
21	MP1A	Mx	.006	4.25
22	MP1A	X	-3.663	.25
23	MP1A	Z	6.345	.25
24	MP1A	Mx	-.002	.25
25	MP1A	X	-3.663	4.25
26	MP1A	Z	6.345	4.25
27	MP1A	Mx	-.002	4.25

Member Point Loads (BLC 35 : Antenna Wm (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.171	1
2	MP4A	Z	1.253	1
3	MP4A	Mx	.002	1
4	MP4A	X	-2.171	3
5	MP4A	Z	1.253	3
6	MP4A	Mx	.002	3
7	MP1A	X	-2.387	2.5
8	MP1A	Z	1.378	2.5
9	MP1A	Mx	-.001	2.5
10	MP2A	X	-2.244	2.5

Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP2A	Z	1.295	2.5
12	MP2A	Mx	-.001	2.5
13	M1	X	-6.223	1
14	M1	Z	3.593	1
15	M1	Mx	0	1
16	MP1A	X	-5.171	.25
17	MP1A	Z	2.986	.25
18	MP1A	Mx	.004	.25
19	MP1A	X	-5.171	4.25
20	MP1A	Z	2.986	4.25
21	MP1A	Mx	.004	4.25
22	MP1A	X	-5.171	.25
23	MP1A	Z	2.986	.25
24	MP1A	Mx	.000844	.25
25	MP1A	X	-5.171	4.25
26	MP1A	Z	2.986	4.25
27	MP1A	Mx	.000844	4.25

Member Point Loads (BLC 36 : Antenna Wm (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-1.805	1
2	MP4A	Z	0	1
3	MP4A	Mx	.002	1
4	MP4A	X	-1.805	3
5	MP4A	Z	0	3
6	MP4A	Mx	.002	3
7	MP1A	X	-2.452	2.5
8	MP1A	Z	0	2.5
9	MP1A	Mx	-.001	2.5
10	MP2A	X	-2.232	2.5
11	MP2A	Z	0	2.5
12	MP2A	Mx	-.001	2.5
13	M1	X	-7.909	1
14	M1	Z	0	1
15	M1	Mx	0	1
16	MP1A	X	-5.294	.25
17	MP1A	Z	0	.25
18	MP1A	Mx	.003	.25
19	MP1A	X	-5.294	4.25
20	MP1A	Z	0	4.25
21	MP1A	Mx	.003	4.25
22	MP1A	X	-5.294	.25
23	MP1A	Z	0	.25
24	MP1A	Mx	.003	.25
25	MP1A	X	-5.294	4.25
26	MP1A	Z	0	4.25
27	MP1A	Mx	.003	4.25

Member Point Loads (BLC 37 : Antenna Wm (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.171	1
2	MP4A	Z	-1.253	1
3	MP4A	Mx	.002	1
4	MP4A	X	-2.171	3
5	MP4A	Z	-1.253	3
6	MP4A	Mx	.002	3

Member Point Loads (BLC 37 : Antenna Wm (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP1A	X	-2.387	2.5
8	MP1A	Z	-1.378	2.5
9	MP1A	Mx	-.001	2.5
10	MP2A	X	-2.244	2.5
11	MP2A	Z	-1.295	2.5
12	MP2A	Mx	-.001	2.5
13	M1	X	-6.707	1
14	M1	Z	-3.872	1
15	M1	Mx	0	1
16	MP1A	X	-5.171	.25
17	MP1A	Z	-2.986	.25
18	MP1A	Mx	.000844	.25
19	MP1A	X	-5.171	4.25
20	MP1A	Z	-2.986	4.25
21	MP1A	Mx	.000844	4.25
22	MP1A	X	-5.171	.25
23	MP1A	Z	-2.986	.25
24	MP1A	Mx	.004	.25
25	MP1A	X	-5.171	4.25
26	MP1A	Z	-2.986	4.25
27	MP1A	Mx	.004	4.25

Member Point Loads (BLC 38 : Antenna Wm (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-1.955	1
2	MP4A	Z	-3.385	1
3	MP4A	Mx	.002	1
4	MP4A	X	-1.955	3
5	MP4A	Z	-3.385	3
6	MP4A	Mx	.002	3
7	MP1A	X	-1.682	2.5
8	MP1A	Z	-2.914	2.5
9	MP1A	Mx	-.000841	2.5
10	MP2A	X	-1.655	2.5
11	MP2A	Z	-2.866	2.5
12	MP2A	Mx	-.000828	2.5
13	M1	X	-3.429	1
14	M1	Z	-5.939	1
15	M1	Mx	0	1
16	MP1A	X	-3.663	.25
17	MP1A	Z	-6.345	.25
18	MP1A	Mx	-.002	.25
19	MP1A	X	-3.663	4.25
20	MP1A	Z	-6.345	4.25
21	MP1A	Mx	-.002	4.25
22	MP1A	X	-3.663	.25
23	MP1A	Z	-6.345	.25
24	MP1A	Mx	.006	.25
25	MP1A	X	-3.663	4.25
26	MP1A	Z	-6.345	4.25
27	MP1A	Mx	.006	4.25

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M9	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M11	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M4	Y	-250	%100

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M4	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	0	1
2	MP4A	My	0	1
3	MP4A	Mz	0	1
4	MP4A	Y	0	3
5	MP4A	My	0	3
6	MP4A	Mz	0	3
7	MP1A	Y	0	2.5
8	MP1A	My	0	2.5
9	MP1A	Mz	0	2.5
10	MP2A	Y	0	2.5
11	MP2A	My	0	2.5
12	MP2A	Mz	0	2.5
13	M1	Y	0	1
14	M1	My	0	1
15	M1	Mz	0	1
16	MP1A	Y	0	.25
17	MP1A	My	0	.25
18	MP1A	Mz	0	.25
19	MP1A	Y	0	4.25
20	MP1A	My	0	4.25
21	MP1A	Mz	0	4.25
22	MP1A	Y	0	.25
23	MP1A	My	0	.25
24	MP1A	Mz	0	.25
25	MP1A	Y	0	4.25
26	MP1A	My	0	4.25
27	MP1A	Mz	0	4.25

Member Point Loads (BLC 82 : Antenna Eh (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Z	-1.306	1
2	MP4A	Mx	0	1
3	MP4A	Z	-1.306	3
4	MP4A	Mx	0	3
5	MP1A	Z	-2.241	2.5
6	MP1A	Mx	0	2.5
7	MP2A	Z	-2.109	2.5
8	MP2A	Mx	0	2.5
9	M1	Z	-.96	1
10	M1	Mx	0	1
11	MP1A	Z	-.6	.25
12	MP1A	Mx	-.00035	.25
13	MP1A	Z	-.6	4.25

Member Point Loads (BLC 82 : Antenna Eh (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP1A	Mx	-.00035	4.25
15	MP1A	Z	-.6	.25
16	MP1A	Mx	.00035	.25
17	MP1A	Z	-.6	4.25
18	MP1A	Mx	.00035	4.25

Member Point Loads (BLC 83 : Antenna Eh (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.306	1
2	MP4A	Mx	-.001	1
3	MP4A	X	1.306	3
4	MP4A	Mx	-.001	3
5	MP1A	X	2.241	2.5
6	MP1A	Mx	.001	2.5
7	MP2A	X	2.109	2.5
8	MP2A	Mx	.001	2.5
9	M1	X	.96	1
10	M1	Mx	0	1
11	MP1A	X	.6	.25
12	MP1A	Mx	-.0003	.25
13	MP1A	X	.6	4.25
14	MP1A	Mx	-.0003	4.25
15	MP1A	X	.6	.25
16	MP1A	Mx	-.0003	.25
17	MP1A	X	.6	4.25
18	MP1A	Mx	-.0003	4.25

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-9.32	-9.32	0	%100
2	M2	Y	-7.73	-7.73	0	%100
3	M4	Y	-6.356	-6.356	0	%100
4	MP4A	Y	-4.81	-4.81	0	%100
5	MP3A	Y	-4.81	-4.81	0	%100
6	MP2A	Y	-4.81	-4.81	0	%100
7	MP1A	Y	-4.81	-4.81	0	%100
8	M13	Y	-6.356	-6.356	0	%100
9	M18	Y	-7.376	-7.376	0	%100

Member Distributed Loads (BLC 41 : Structure Wo (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-2.542	-2.542	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-7.887	-7.887	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	-10.624	-10.624	0	%100
7	MP4A	X	0	0	0	%100
8	MP4A	Z	-7.209	-7.209	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	-7.209	-7.209	0	%100
11	MP2A	X	0	0	0	%100
12	MP2A	Z	-7.209	-7.209	0	%100
13	MP1A	X	0	0	0	%100

Member Distributed Loads (BLC 41 : Structure Wo (0 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	MP1A	Z	-7.209	-7.209	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	-10.624	-10.624	0	%100
17	M18	X	0	0	0	%100
18	M18	Z	-1.898	-1.898	0	%100

Member Distributed Loads (BLC 42 : Structure Wo (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	3.814	3.814	0	%100
2	M1	Z	-6.606	-6.606	0	%100
3	M2	X	3.944	3.944	0	%100
4	M2	Z	-6.831	-6.831	0	%100
5	M4	X	3.984	3.984	0	%100
6	M4	Z	-6.9	-6.9	0	%100
7	MP4A	X	3.604	3.604	0	%100
8	MP4A	Z	-6.243	-6.243	0	%100
9	MP3A	X	3.604	3.604	0	%100
10	MP3A	Z	-6.243	-6.243	0	%100
11	MP2A	X	3.604	3.604	0	%100
12	MP2A	Z	-6.243	-6.243	0	%100
13	MP1A	X	3.604	3.604	0	%100
14	MP1A	Z	-6.243	-6.243	0	%100
15	M13	X	3.984	3.984	0	%100
16	M13	Z	-6.9	-6.9	0	%100
17	M18	X	2.846	2.846	0	%100
18	M18	Z	-4.93	-4.93	0	%100

Member Distributed Loads (BLC 43 : Structure Wo (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	8.807	8.807	0	%100
2	M1	Z	-5.085	-5.085	0	%100
3	M2	X	6.831	6.831	0	%100
4	M2	Z	-3.944	-3.944	0	%100
5	M4	X	2.3	2.3	0	%100
6	M4	Z	-1.328	-1.328	0	%100
7	MP4A	X	6.243	6.243	0	%100
8	MP4A	Z	-3.604	-3.604	0	%100
9	MP3A	X	6.243	6.243	0	%100
10	MP3A	Z	-3.604	-3.604	0	%100
11	MP2A	X	6.243	6.243	0	%100
12	MP2A	Z	-3.604	-3.604	0	%100
13	MP1A	X	6.243	6.243	0	%100
14	MP1A	Z	-3.604	-3.604	0	%100
15	M13	X	2.3	2.3	0	%100
16	M13	Z	-1.328	-1.328	0	%100
17	M18	X	6.573	6.573	0	%100
18	M18	Z	-3.795	-3.795	0	%100

Member Distributed Loads (BLC 44 : Structure Wo (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	7.627	7.627	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	7.887	7.887	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100

Member Distributed Loads (BLC 44 : Structure Wo (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
6	M4	Z	0	0	0	%100
7	MP4A	X	7.209	7.209	0	%100
8	MP4A	Z	0	0	0	%100
9	MP3A	X	7.209	7.209	0	%100
10	MP3A	Z	0	0	0	%100
11	MP2A	X	7.209	7.209	0	%100
12	MP2A	Z	0	0	0	%100
13	MP1A	X	7.209	7.209	0	%100
14	MP1A	Z	0	0	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	0	0	0	%100
17	M18	X	5.693	5.693	0	%100
18	M18	Z	0	0	0	%100

Member Distributed Loads (BLC 45 : Structure Wo (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	2.202	2.202	0	%100
2	M1	Z	1.271	1.271	0	%100
3	M2	X	6.831	6.831	0	%100
4	M2	Z	3.944	3.944	0	%100
5	M4	X	2.3	2.3	0	%100
6	M4	Z	1.328	1.328	0	%100
7	MP4A	X	6.243	6.243	0	%100
8	MP4A	Z	3.604	3.604	0	%100
9	MP3A	X	6.243	6.243	0	%100
10	MP3A	Z	3.604	3.604	0	%100
11	MP2A	X	6.243	6.243	0	%100
12	MP2A	Z	3.604	3.604	0	%100
13	MP1A	X	6.243	6.243	0	%100
14	MP1A	Z	3.604	3.604	0	%100
15	M13	X	2.3	2.3	0	%100
16	M13	Z	1.328	1.328	0	%100
17	M18	X	1.643	1.643	0	%100
18	M18	Z	.949	.949	0	%100

Member Distributed Loads (BLC 46 : Structure Wo (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	3.944	3.944	0	%100
4	M2	Z	6.831	6.831	0	%100
5	M4	X	3.984	3.984	0	%100
6	M4	Z	6.9	6.9	0	%100
7	MP4A	X	3.604	3.604	0	%100
8	MP4A	Z	6.243	6.243	0	%100
9	MP3A	X	3.604	3.604	0	%100
10	MP3A	Z	6.243	6.243	0	%100
11	MP2A	X	3.604	3.604	0	%100
12	MP2A	Z	6.243	6.243	0	%100
13	MP1A	X	3.604	3.604	0	%100
14	MP1A	Z	6.243	6.243	0	%100
15	M13	X	3.984	3.984	0	%100
16	M13	Z	6.9	6.9	0	%100
17	M18	X	0	0	0	%100
18	M18	Z	0	0	0	%100

Member Distributed Loads (BLC 47 : Structure Wo (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	2.542	2.542	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	7.887	7.887	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	10.624	10.624	0	%100
7	MP4A	X	0	0	0	%100
8	MP4A	Z	7.209	7.209	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	7.209	7.209	0	%100
11	MP2A	X	0	0	0	%100
12	MP2A	Z	7.209	7.209	0	%100
13	MP1A	X	0	0	0	%100
14	MP1A	Z	7.209	7.209	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	10.624	10.624	0	%100
17	M18	X	0	0	0	%100
18	M18	Z	1.898	1.898	0	%100

Member Distributed Loads (BLC 48 : Structure Wo (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.814	-3.814	0	%100
2	M1	Z	6.606	6.606	0	%100
3	M2	X	-3.944	-3.944	0	%100
4	M2	Z	6.831	6.831	0	%100
5	M4	X	-3.984	-3.984	0	%100
6	M4	Z	6.9	6.9	0	%100
7	MP4A	X	-3.604	-3.604	0	%100
8	MP4A	Z	6.243	6.243	0	%100
9	MP3A	X	-3.604	-3.604	0	%100
10	MP3A	Z	6.243	6.243	0	%100
11	MP2A	X	-3.604	-3.604	0	%100
12	MP2A	Z	6.243	6.243	0	%100
13	MP1A	X	-3.604	-3.604	0	%100
14	MP1A	Z	6.243	6.243	0	%100
15	M13	X	-3.984	-3.984	0	%100
16	M13	Z	6.9	6.9	0	%100
17	M18	X	-2.846	-2.846	0	%100
18	M18	Z	4.93	4.93	0	%100

Member Distributed Loads (BLC 49 : Structure Wo (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-8.807	-8.807	0	%100
2	M1	Z	5.085	5.085	0	%100
3	M2	X	-6.831	-6.831	0	%100
4	M2	Z	3.944	3.944	0	%100
5	M4	X	-2.3	-2.3	0	%100
6	M4	Z	1.328	1.328	0	%100
7	MP4A	X	-6.243	-6.243	0	%100
8	MP4A	Z	3.604	3.604	0	%100
9	MP3A	X	-6.243	-6.243	0	%100
10	MP3A	Z	3.604	3.604	0	%100
11	MP2A	X	-6.243	-6.243	0	%100
12	MP2A	Z	3.604	3.604	0	%100
13	MP1A	X	-6.243	-6.243	0	%100
14	MP1A	Z	3.604	3.604	0	%100

Member Distributed Loads (BLC 49 : Structure Wo (240 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
15	M13	X	-2.3	-2.3	0	%100
16	M13	Z	1.328	1.328	0	%100
17	M18	X	-6.573	-6.573	0	%100
18	M18	Z	3.795	3.795	0	%100

Member Distributed Loads (BLC 50 : Structure Wo (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-7.627	-7.627	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-7.887	-7.887	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP4A	X	-7.209	-7.209	0	%100
8	MP4A	Z	0	0	0	%100
9	MP3A	X	-7.209	-7.209	0	%100
10	MP3A	Z	0	0	0	%100
11	MP2A	X	-7.209	-7.209	0	%100
12	MP2A	Z	0	0	0	%100
13	MP1A	X	-7.209	-7.209	0	%100
14	MP1A	Z	0	0	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	0	0	0	%100
17	M18	X	-5.693	-5.693	0	%100
18	M18	Z	0	0	0	%100

Member Distributed Loads (BLC 51 : Structure Wo (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-2.202	-2.202	0	%100
2	M1	Z	-1.271	-1.271	0	%100
3	M2	X	-6.831	-6.831	0	%100
4	M2	Z	-3.944	-3.944	0	%100
5	M4	X	-2.3	-2.3	0	%100
6	M4	Z	-1.328	-1.328	0	%100
7	MP4A	X	-6.243	-6.243	0	%100
8	MP4A	Z	-3.604	-3.604	0	%100
9	MP3A	X	-6.243	-6.243	0	%100
10	MP3A	Z	-3.604	-3.604	0	%100
11	MP2A	X	-6.243	-6.243	0	%100
12	MP2A	Z	-3.604	-3.604	0	%100
13	MP1A	X	-6.243	-6.243	0	%100
14	MP1A	Z	-3.604	-3.604	0	%100
15	M13	X	-2.3	-2.3	0	%100
16	M13	Z	-1.328	-1.328	0	%100
17	M18	X	-1.643	-1.643	0	%100
18	M18	Z	-.949	-.949	0	%100

Member Distributed Loads (BLC 52 : Structure Wo (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-3.944	-3.944	0	%100
4	M2	Z	-6.831	-6.831	0	%100
5	M4	X	-3.984	-3.984	0	%100
6	M4	Z	-6.9	-6.9	0	%100

Member Distributed Loads (BLC 52 : Structure Wo (330 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
7	MP4A	X	-3.604	-3.604	0	%100
8	MP4A	Z	-6.243	-6.243	0	%100
9	MP3A	X	-3.604	-3.604	0	%100
10	MP3A	Z	-6.243	-6.243	0	%100
11	MP2A	X	-3.604	-3.604	0	%100
12	MP2A	Z	-6.243	-6.243	0	%100
13	MP1A	X	-3.604	-3.604	0	%100
14	MP1A	Z	-6.243	-6.243	0	%100
15	M13	X	-3.984	-3.984	0	%100
16	M13	Z	-6.9	-6.9	0	%100
17	M18	X	0	0	0	%100
18	M18	Z	0	0	0	%100

Member Distributed Loads (BLC 53 : Structure Wi (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-.704	-.704	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-2.339	-2.339	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	-3.133	-3.133	0	%100
7	MP4A	X	0	0	0	%100
8	MP4A	Z	-2.52	-2.52	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	-2.52	-2.52	0	%100
11	MP2A	X	0	0	0	%100
12	MP2A	Z	-2.52	-2.52	0	%100
13	MP1A	X	0	0	0	%100
14	MP1A	Z	-2.52	-2.52	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	-3.133	-3.133	0	%100
17	M18	X	0	0	0	%100
18	M18	Z	-.597	-.597	0	%100

Member Distributed Loads (BLC 54 : Structure Wi (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.057	1.057	0	%100
2	M1	Z	-1.83	-1.83	0	%100
3	M2	X	1.169	1.169	0	%100
4	M2	Z	-2.025	-2.025	0	%100
5	M4	X	1.175	1.175	0	%100
6	M4	Z	-2.035	-2.035	0	%100
7	MP4A	X	1.26	1.26	0	%100
8	MP4A	Z	-2.183	-2.183	0	%100
9	MP3A	X	1.26	1.26	0	%100
10	MP3A	Z	-2.183	-2.183	0	%100
11	MP2A	X	1.26	1.26	0	%100
12	MP2A	Z	-2.183	-2.183	0	%100
13	MP1A	X	1.26	1.26	0	%100
14	MP1A	Z	-2.183	-2.183	0	%100
15	M13	X	1.175	1.175	0	%100
16	M13	Z	-2.035	-2.035	0	%100
17	M18	X	.896	.896	0	%100
18	M18	Z	-1.552	-1.552	0	%100

Member Distributed Loads (BLC 55 : Structure Wi (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	2.44	2.44	0	%100
2	M1	Z	-1.409	-1.409	0	%100
3	M2	X	2.025	2.025	0	%100
4	M2	Z	-1.169	-1.169	0	%100
5	M4	X	.678	.678	0	%100
6	M4	Z	-.392	-.392	0	%100
7	MP4A	X	2.183	2.183	0	%100
8	MP4A	Z	-1.26	-1.26	0	%100
9	MP3A	X	2.183	2.183	0	%100
10	MP3A	Z	-1.26	-1.26	0	%100
11	MP2A	X	2.183	2.183	0	%100
12	MP2A	Z	-1.26	-1.26	0	%100
13	MP1A	X	2.183	2.183	0	%100
14	MP1A	Z	-1.26	-1.26	0	%100
15	M13	X	.678	.678	0	%100
16	M13	Z	-.392	-.392	0	%100
17	M18	X	2.069	2.069	0	%100
18	M18	Z	-1.195	-1.195	0	%100

Member Distributed Loads (BLC 56 : Structure Wi (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	2.113	2.113	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	2.339	2.339	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP4A	X	2.52	2.52	0	%100
8	MP4A	Z	0	0	0	%100
9	MP3A	X	2.52	2.52	0	%100
10	MP3A	Z	0	0	0	%100
11	MP2A	X	2.52	2.52	0	%100
12	MP2A	Z	0	0	0	%100
13	MP1A	X	2.52	2.52	0	%100
14	MP1A	Z	0	0	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	0	0	0	%100
17	M18	X	1.792	1.792	0	%100
18	M18	Z	0	0	0	%100

Member Distributed Loads (BLC 57 : Structure Wi (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.61	.61	0	%100
2	M1	Z	.352	.352	0	%100
3	M2	X	2.025	2.025	0	%100
4	M2	Z	1.169	1.169	0	%100
5	M4	X	.678	.678	0	%100
6	M4	Z	.392	.392	0	%100
7	MP4A	X	2.183	2.183	0	%100
8	MP4A	Z	1.26	1.26	0	%100
9	MP3A	X	2.183	2.183	0	%100
10	MP3A	Z	1.26	1.26	0	%100
11	MP2A	X	2.183	2.183	0	%100
12	MP2A	Z	1.26	1.26	0	%100
13	MP1A	X	2.183	2.183	0	%100
14	MP1A	Z	1.26	1.26	0	%100

Member Distributed Loads (BLC 57 : Structure Wi (120 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
15	M13	X	.678	.678	0	%100
16	M13	Z	.392	.392	0	%100
17	M18	X	.517	.517	0	%100
18	M18	Z	.299	.299	0	%100

Member Distributed Loads (BLC 58 : Structure Wi (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	1.169	1.169	0	%100
4	M2	Z	2.025	2.025	0	%100
5	M4	X	1.175	1.175	0	%100
6	M4	Z	2.035	2.035	0	%100
7	MP4A	X	1.26	1.26	0	%100
8	MP4A	Z	2.183	2.183	0	%100
9	MP3A	X	1.26	1.26	0	%100
10	MP3A	Z	2.183	2.183	0	%100
11	MP2A	X	1.26	1.26	0	%100
12	MP2A	Z	2.183	2.183	0	%100
13	MP1A	X	1.26	1.26	0	%100
14	MP1A	Z	2.183	2.183	0	%100
15	M13	X	1.175	1.175	0	%100
16	M13	Z	2.035	2.035	0	%100
17	M18	X	0	0	0	%100
18	M18	Z	0	0	0	%100

Member Distributed Loads (BLC 59 : Structure Wi (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	.704	.704	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	2.339	2.339	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	3.133	3.133	0	%100
7	MP4A	X	0	0	0	%100
8	MP4A	Z	2.52	2.52	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	2.52	2.52	0	%100
11	MP2A	X	0	0	0	%100
12	MP2A	Z	2.52	2.52	0	%100
13	MP1A	X	0	0	0	%100
14	MP1A	Z	2.52	2.52	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	3.133	3.133	0	%100
17	M18	X	0	0	0	%100
18	M18	Z	.597	.597	0	%100

Member Distributed Loads (BLC 60 : Structure Wi (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.057	-1.057	0	%100
2	M1	Z	1.83	1.83	0	%100
3	M2	X	-1.169	-1.169	0	%100
4	M2	Z	2.025	2.025	0	%100
5	M4	X	-1.175	-1.175	0	%100
6	M4	Z	2.035	2.035	0	%100

Member Distributed Loads (BLC 60 : Structure Wi (210 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
7	MP4A	X	-1.26	-1.26	0	%100
8	MP4A	Z	2.183	2.183	0	%100
9	MP3A	X	-1.26	-1.26	0	%100
10	MP3A	Z	2.183	2.183	0	%100
11	MP2A	X	-1.26	-1.26	0	%100
12	MP2A	Z	2.183	2.183	0	%100
13	MP1A	X	-1.26	-1.26	0	%100
14	MP1A	Z	2.183	2.183	0	%100
15	M13	X	-1.175	-1.175	0	%100
16	M13	Z	2.035	2.035	0	%100
17	M18	X	-.896	-.896	0	%100
18	M18	Z	1.552	1.552	0	%100

Member Distributed Loads (BLC 61 : Structure Wi (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-2.44	-2.44	0	%100
2	M1	Z	1.409	1.409	0	%100
3	M2	X	-2.025	-2.025	0	%100
4	M2	Z	1.169	1.169	0	%100
5	M4	X	-.678	-.678	0	%100
6	M4	Z	.392	.392	0	%100
7	MP4A	X	-2.183	-2.183	0	%100
8	MP4A	Z	1.26	1.26	0	%100
9	MP3A	X	-2.183	-2.183	0	%100
10	MP3A	Z	1.26	1.26	0	%100
11	MP2A	X	-2.183	-2.183	0	%100
12	MP2A	Z	1.26	1.26	0	%100
13	MP1A	X	-2.183	-2.183	0	%100
14	MP1A	Z	1.26	1.26	0	%100
15	M13	X	-.678	-.678	0	%100
16	M13	Z	.392	.392	0	%100
17	M18	X	-2.069	-2.069	0	%100
18	M18	Z	1.195	1.195	0	%100

Member Distributed Loads (BLC 62 : Structure Wi (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-2.113	-2.113	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-2.339	-2.339	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP4A	X	-2.52	-2.52	0	%100
8	MP4A	Z	0	0	0	%100
9	MP3A	X	-2.52	-2.52	0	%100
10	MP3A	Z	0	0	0	%100
11	MP2A	X	-2.52	-2.52	0	%100
12	MP2A	Z	0	0	0	%100
13	MP1A	X	-2.52	-2.52	0	%100
14	MP1A	Z	0	0	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	0	0	0	%100
17	M18	X	-1.792	-1.792	0	%100
18	M18	Z	0	0	0	%100

Member Distributed Loads (BLC 63 : Structure Wi (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.61	-.61	0	%100
2	M1	Z	-.352	-.352	0	%100
3	M2	X	-2.025	-2.025	0	%100
4	M2	Z	-1.169	-1.169	0	%100
5	M4	X	-.678	-.678	0	%100
6	M4	Z	-.392	-.392	0	%100
7	MP4A	X	-2.183	-2.183	0	%100
8	MP4A	Z	-1.26	-1.26	0	%100
9	MP3A	X	-2.183	-2.183	0	%100
10	MP3A	Z	-1.26	-1.26	0	%100
11	MP2A	X	-2.183	-2.183	0	%100
12	MP2A	Z	-1.26	-1.26	0	%100
13	MP1A	X	-2.183	-2.183	0	%100
14	MP1A	Z	-1.26	-1.26	0	%100
15	M13	X	-.678	-.678	0	%100
16	M13	Z	-.392	-.392	0	%100
17	M18	X	-.517	-.517	0	%100
18	M18	Z	-.299	-.299	0	%100

Member Distributed Loads (BLC 64 : Structure Wi (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-1.169	-1.169	0	%100
4	M2	Z	-2.025	-2.025	0	%100
5	M4	X	-1.175	-1.175	0	%100
6	M4	Z	-2.035	-2.035	0	%100
7	MP4A	X	-1.26	-1.26	0	%100
8	MP4A	Z	-2.183	-2.183	0	%100
9	MP3A	X	-1.26	-1.26	0	%100
10	MP3A	Z	-2.183	-2.183	0	%100
11	MP2A	X	-1.26	-1.26	0	%100
12	MP2A	Z	-2.183	-2.183	0	%100
13	MP1A	X	-1.26	-1.26	0	%100
14	MP1A	Z	-2.183	-2.183	0	%100
15	M13	X	-1.175	-1.175	0	%100
16	M13	Z	-2.035	-2.035	0	%100
17	M18	X	0	0	0	%100
18	M18	Z	0	0	0	%100

Member Distributed Loads (BLC 65 : Structure Wm (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-.164	-.164	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-.51	-.51	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	-.687	-.687	0	%100
7	MP4A	X	0	0	0	%100
8	MP4A	Z	-.466	-.466	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	-.466	-.466	0	%100
11	MP2A	X	0	0	0	%100
12	MP2A	Z	-.466	-.466	0	%100
13	MP1A	X	0	0	0	%100
14	MP1A	Z	-.466	-.466	0	%100

Member Distributed Loads (BLC 65 : Structure Wm (0 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
15	M13	X	0	0	0	%100
16	M13	Z	-.687	-.687	0	%100
17	M18	X	0	0	0	%100
18	M18	Z	-.123	-.123	0	%100

Member Distributed Loads (BLC 66 : Structure Wm (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.247	.247	0	%100
2	M1	Z	-.427	-.427	0	%100
3	M2	X	.255	.255	0	%100
4	M2	Z	-.442	-.442	0	%100
5	M4	X	.258	.258	0	%100
6	M4	Z	-.446	-.446	0	%100
7	MP4A	X	.233	.233	0	%100
8	MP4A	Z	-.404	-.404	0	%100
9	MP3A	X	.233	.233	0	%100
10	MP3A	Z	-.404	-.404	0	%100
11	MP2A	X	.233	.233	0	%100
12	MP2A	Z	-.404	-.404	0	%100
13	MP1A	X	.233	.233	0	%100
14	MP1A	Z	-.404	-.404	0	%100
15	M13	X	.258	.258	0	%100
16	M13	Z	-.446	-.446	0	%100
17	M18	X	.184	.184	0	%100
18	M18	Z	-.319	-.319	0	%100

Member Distributed Loads (BLC 67 : Structure Wm (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.569	.569	0	%100
2	M1	Z	-.329	-.329	0	%100
3	M2	X	.442	.442	0	%100
4	M2	Z	-.255	-.255	0	%100
5	M4	X	.149	.149	0	%100
6	M4	Z	-.086	-.086	0	%100
7	MP4A	X	.404	.404	0	%100
8	MP4A	Z	-.233	-.233	0	%100
9	MP3A	X	.404	.404	0	%100
10	MP3A	Z	-.233	-.233	0	%100
11	MP2A	X	.404	.404	0	%100
12	MP2A	Z	-.233	-.233	0	%100
13	MP1A	X	.404	.404	0	%100
14	MP1A	Z	-.233	-.233	0	%100
15	M13	X	.149	.149	0	%100
16	M13	Z	-.086	-.086	0	%100
17	M18	X	.425	.425	0	%100
18	M18	Z	-.245	-.245	0	%100

Member Distributed Loads (BLC 68 : Structure Wm (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.493	.493	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	.51	.51	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100

Member Distributed Loads (BLC 68 : Structure Wm (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
7	MP4A	X	.466	.466	0	%100
8	MP4A	Z	0	0	0	%100
9	MP3A	X	.466	.466	0	%100
10	MP3A	Z	0	0	0	%100
11	MP2A	X	.466	.466	0	%100
12	MP2A	Z	0	0	0	%100
13	MP1A	X	.466	.466	0	%100
14	MP1A	Z	0	0	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	0	0	0	%100
17	M18	X	.368	.368	0	%100
18	M18	Z	0	0	0	%100

Member Distributed Loads (BLC 69 : Structure Wm (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.142	.142	0	%100
2	M1	Z	.082	.082	0	%100
3	M2	X	.442	.442	0	%100
4	M2	Z	.255	.255	0	%100
5	M4	X	.149	.149	0	%100
6	M4	Z	.086	.086	0	%100
7	MP4A	X	.404	.404	0	%100
8	MP4A	Z	.233	.233	0	%100
9	MP3A	X	.404	.404	0	%100
10	MP3A	Z	.233	.233	0	%100
11	MP2A	X	.404	.404	0	%100
12	MP2A	Z	.233	.233	0	%100
13	MP1A	X	.404	.404	0	%100
14	MP1A	Z	.233	.233	0	%100
15	M13	X	.149	.149	0	%100
16	M13	Z	.086	.086	0	%100
17	M18	X	.106	.106	0	%100
18	M18	Z	.061	.061	0	%100

Member Distributed Loads (BLC 70 : Structure Wm (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	.255	.255	0	%100
4	M2	Z	.442	.442	0	%100
5	M4	X	.258	.258	0	%100
6	M4	Z	.446	.446	0	%100
7	MP4A	X	.233	.233	0	%100
8	MP4A	Z	.404	.404	0	%100
9	MP3A	X	.233	.233	0	%100
10	MP3A	Z	.404	.404	0	%100
11	MP2A	X	.233	.233	0	%100
12	MP2A	Z	.404	.404	0	%100
13	MP1A	X	.233	.233	0	%100
14	MP1A	Z	.404	.404	0	%100
15	M13	X	.258	.258	0	%100
16	M13	Z	.446	.446	0	%100
17	M18	X	0	0	0	%100
18	M18	Z	0	0	0	%100

Member Distributed Loads (BLC 71 : Structure Wm (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	.164	.164	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	.51	.51	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	.687	.687	0	%100
7	MP4A	X	0	0	0	%100
8	MP4A	Z	.466	.466	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	.466	.466	0	%100
11	MP2A	X	0	0	0	%100
12	MP2A	Z	.466	.466	0	%100
13	MP1A	X	0	0	0	%100
14	MP1A	Z	.466	.466	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	.687	.687	0	%100
17	M18	X	0	0	0	%100
18	M18	Z	.123	.123	0	%100

Member Distributed Loads (BLC 72 : Structure Wm (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.247	-.247	0	%100
2	M1	Z	.427	.427	0	%100
3	M2	X	-.255	-.255	0	%100
4	M2	Z	.442	.442	0	%100
5	M4	X	-.258	-.258	0	%100
6	M4	Z	.446	.446	0	%100
7	MP4A	X	-.233	-.233	0	%100
8	MP4A	Z	.404	.404	0	%100
9	MP3A	X	-.233	-.233	0	%100
10	MP3A	Z	.404	.404	0	%100
11	MP2A	X	-.233	-.233	0	%100
12	MP2A	Z	.404	.404	0	%100
13	MP1A	X	-.233	-.233	0	%100
14	MP1A	Z	.404	.404	0	%100
15	M13	X	-.258	-.258	0	%100
16	M13	Z	.446	.446	0	%100
17	M18	X	-.184	-.184	0	%100
18	M18	Z	.319	.319	0	%100

Member Distributed Loads (BLC 73 : Structure Wm (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.569	-.569	0	%100
2	M1	Z	.329	.329	0	%100
3	M2	X	-.442	-.442	0	%100
4	M2	Z	.255	.255	0	%100
5	M4	X	-.149	-.149	0	%100
6	M4	Z	.086	.086	0	%100
7	MP4A	X	-.404	-.404	0	%100
8	MP4A	Z	.233	.233	0	%100
9	MP3A	X	-.404	-.404	0	%100
10	MP3A	Z	.233	.233	0	%100
11	MP2A	X	-.404	-.404	0	%100
12	MP2A	Z	.233	.233	0	%100
13	MP1A	X	-.404	-.404	0	%100
14	MP1A	Z	.233	.233	0	%100

Member Distributed Loads (BLC 73 : Structure Wm (240 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
15	M13	X	-.149	-.149	0	%100
16	M13	Z	.086	.086	0	%100
17	M18	X	-.425	-.425	0	%100
18	M18	Z	.245	.245	0	%100

Member Distributed Loads (BLC 74 : Structure Wm (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.493	-.493	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-.51	-.51	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP4A	X	-.466	-.466	0	%100
8	MP4A	Z	0	0	0	%100
9	MP3A	X	-.466	-.466	0	%100
10	MP3A	Z	0	0	0	%100
11	MP2A	X	-.466	-.466	0	%100
12	MP2A	Z	0	0	0	%100
13	MP1A	X	-.466	-.466	0	%100
14	MP1A	Z	0	0	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	0	0	0	%100
17	M18	X	-.368	-.368	0	%100
18	M18	Z	0	0	0	%100

Member Distributed Loads (BLC 75 : Structure Wm (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.142	-.142	0	%100
2	M1	Z	-.082	-.082	0	%100
3	M2	X	-.442	-.442	0	%100
4	M2	Z	-.255	-.255	0	%100
5	M4	X	-.149	-.149	0	%100
6	M4	Z	-.086	-.086	0	%100
7	MP4A	X	-.404	-.404	0	%100
8	MP4A	Z	-.233	-.233	0	%100
9	MP3A	X	-.404	-.404	0	%100
10	MP3A	Z	-.233	-.233	0	%100
11	MP2A	X	-.404	-.404	0	%100
12	MP2A	Z	-.233	-.233	0	%100
13	MP1A	X	-.404	-.404	0	%100
14	MP1A	Z	-.233	-.233	0	%100
15	M13	X	-.149	-.149	0	%100
16	M13	Z	-.086	-.086	0	%100
17	M18	X	-.106	-.106	0	%100
18	M18	Z	-.061	-.061	0	%100

Member Distributed Loads (BLC 76 : Structure Wm (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-.255	-.255	0	%100
4	M2	Z	-.442	-.442	0	%100
5	M4	X	-.258	-.258	0	%100
6	M4	Z	-.446	-.446	0	%100

Member Distributed Loads (BLC 76 : Structure Wm (330 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
7	MP4A	X	-.233	-.233	0	%100
8	MP4A	Z	-.404	-.404	0	%100
9	MP3A	X	-.233	-.233	0	%100
10	MP3A	Z	-.404	-.404	0	%100
11	MP2A	X	-.233	-.233	0	%100
12	MP2A	Z	-.404	-.404	0	%100
13	MP1A	X	-.233	-.233	0	%100
14	MP1A	Z	-.404	-.404	0	%100
15	M13	X	-.258	-.258	0	%100
16	M13	Z	-.446	-.446	0	%100
17	M18	X	0	0	0	%100
18	M18	Z	0	0	0	%100

Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
No Data to Print ...						

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	977.739	45	1061.363	19	936.067	1	-.82	65	2.319	8	2.38	38
2		min	-458.518	3	384.461	65	-614.929	7	-2.235	20	-1.883	2	.233	8
3	N34	max	260.06	12	641.862	13	431.286	1	-.483	65	2.666	8	1.365	38
4		min	-964.502	42	241.301	71	-752.42	7	-1.289	20	-3.078	2	.127	8
5	Totals:	max	866.83	9	1684.626	14	1367.353	1						
6		min	-866.829	3	626.164	71	-1367.349	7						

Envelope AISC 15th(360-16): LRFD Steel Code Checks

	Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
1	MP2A	PIPE_2.0	.483	4.417	44	.079	2.583		39	14916.096	32130	1.872	1.872	1....	H1-1b
2	M18	HSS3X3X4	.459	0	2	.105	0	z	38	93973.701	101016	8.556	8.556	2....	H1-1b
3	M13	PIPE_3.0	.436	6.51	7	.088	6.51		44	28250.554	65205	5.749	5.749	1....	H1-1b
4	MP1A	PIPE_2.0	.384	1.417	42	.078	4.417		10	14916.096	32130	1.872	1.872	1....	H1-1b
5	M1	HSS4X4X3	.376	0	44	.136	0	y	38	103610.2...	106812	12.662	12.662	1....	H1-1b
6	M4	PIPE_3.0	.304	6.25	37	.105	6.25		44	28250.554	65205	5.749	5.749	1....	H1-1b
7	MP3A	PIPE_2.0	.204	4.417	2	.062	4.417		14	14916.096	32130	1.872	1.872	1....	H1-1b
8	MP4A	PIPE_2.0	.121	4.417	2	.049	4.417		14	14916.096	32130	1.872	1.872	1....	H1-1b
9	M2	PIPE_4.0	.000	.75	8	.000	.75		8	92571.332	93240	10.631	10.631	1....	H1-1b

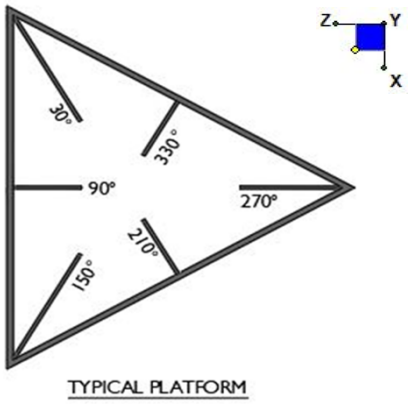
Client:	Verizon Wireless	Date:	4/19/2022
Site Name:	Trumbull S 3 CT - Trumbull Police		
Project No.	21781059A		
Title:	Mount Fix	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check - Proposed

RISA Model Data

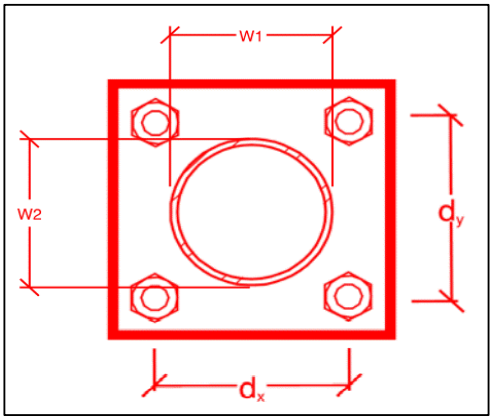
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N34	120



TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:	yes
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	6
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	6
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength (kips):	12.9
Required Shear Strength (kips):	3.3
Tensile Strength / bolt (kips):	20.7
Shear Strength / bolt (kips):	12.4
Tensile Capacity Overall:	**15.6%***
Shear Capacity Overall:	**6.6%**



**Note: Tension reduction not required if tension or shear capacity < 30%*

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:	Rect
Plate Width (in):	8.25
Plate Height (in):	8.25
W1 (in):	3
W2 (in):	3
Fy (ksi, plate):	52
t_{Plate} (in):	0.75
Weld Size (1/16 in):	5
Phi*Rn (kip/in):	6.96
Required Weld Strength (kip/in):	3.22
Plate Bending Capacity:	**21.8%**
Weld Capacity:	**46.2%**

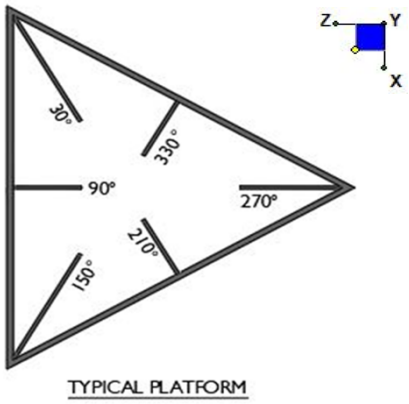
Client:	Verizon Wireless	Date:	4/19/2022
Site Name:	Trumbull S 3 CT - Trumbull Police		
Project No.	21781059A		
Title:	Mount Fix	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check

RISA Model Data

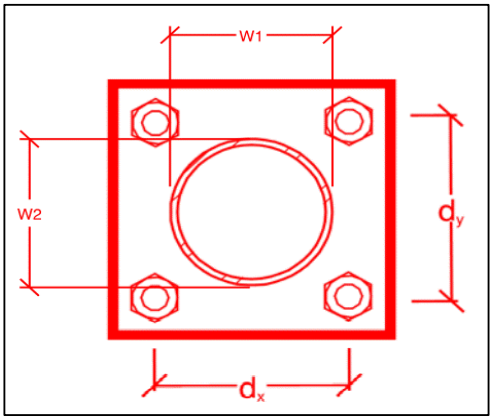
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N1	120



TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:	yes
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	7
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	7
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength (kips):	12.4
Required Shear Strength (kips):	4.9
Tensile Strength / bolt (kips):	20.7
Shear Strength / bolt (kips):	12.4
Tensile Capacity Overall:	**15.0%***
Shear Capacity Overall:	**9.9%**



**Note: Tension reduction not required if tension or shear capacity < 30%*

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:	Rect
Plate Width (in):	9
Plate Height (in):	9
W1 (in):	4
W2 (in):	4
Fy (ksi, plate):	36
t_{Plate} (in):	0.625
Weld Size (1/16 in):	4
Phi*Rn (kip/in):	5.57
Required Weld Strength (kip/in):	2.02
Plate Bending Capacity:	**44.6%**
Weld Capacity:	**36.3%**

Site Name: ***TRUMBULL S 3 CT***
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW 700	751	4	541	2165	109	0.0066	0.5007	1.31%
VZW CDMA	876.03	2	499	998	109	0.0030	0.5840	0.52%
VZW Cellular	874	4	641	2563	109	0.0078	0.5827	1.33%
VZW PCS	1980	4	1236	4945	109	0.0150	1.0000	1.50%
VZW AWS	2120	4	1815	7259	109	0.0220	1.0000	2.20%
VZW CBRS	3625	4	0	0	109	0.0000	1.0000	0.00%
VZW CBAND	3730.08	2	13032	26063	109	0.0789	1.0000	7.89%
Total Percentage of Maximum Permissible Exposure								14.74%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992
**Calculation includes a -10 dB Off Beam Antenna Pattern Adjustment pursuant to Attachments B and C of the Siting Council's November 10, 2015 Memorandum for Exempt Modification filings

MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case maximum values used.

Search... Sign in

Parcels (1)

☆ **Parcel ID: E10-304**

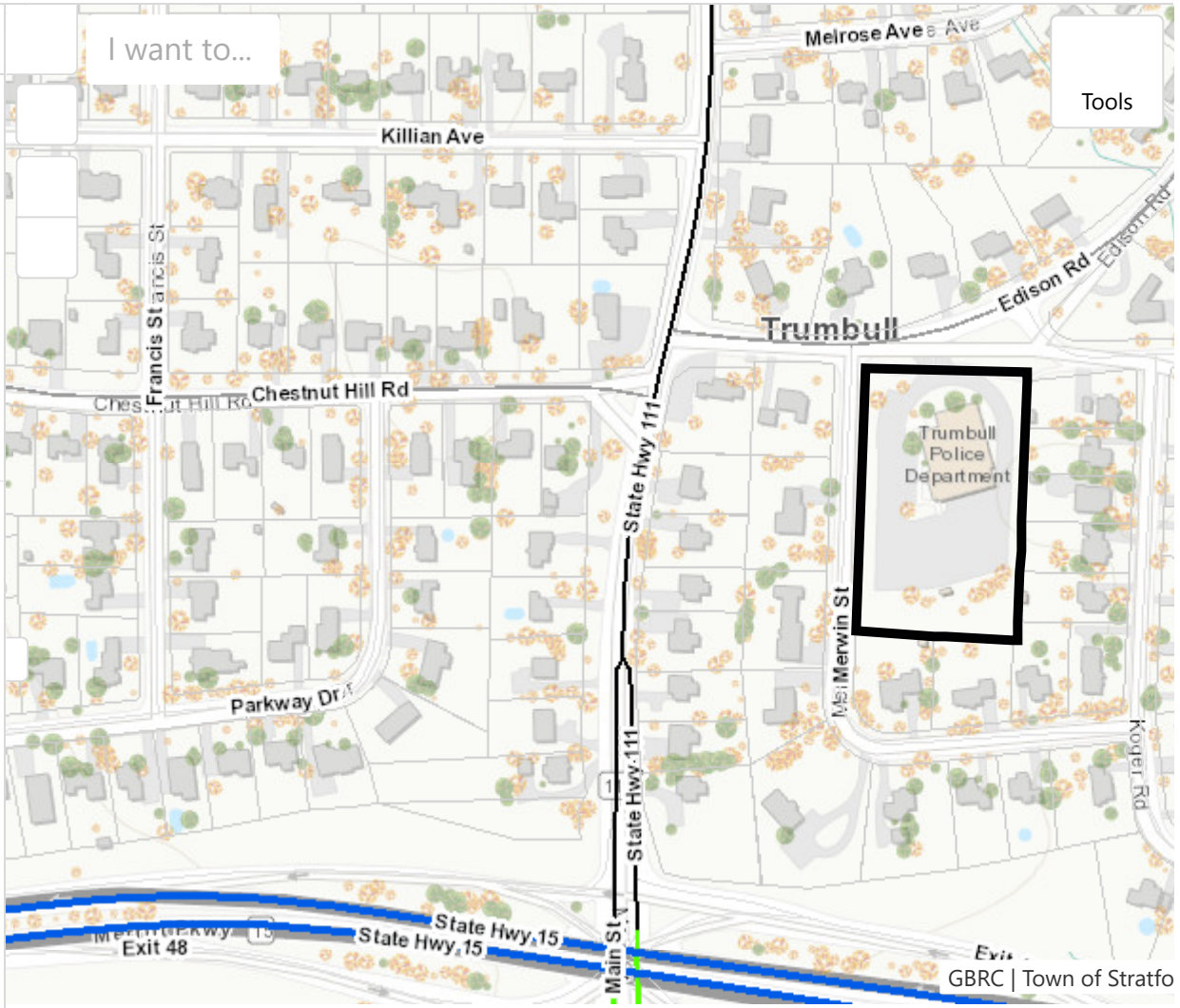
TRUMBULL TOWN OF
158 EDISON ROAD
Field Card
Zoom to Feature
Buffer Feature>

Is this property within or in close proximity to a FEMA Special Flood Hazard Zone? NO
Click here to toggle the Flood Hazard Area Layer.
Click here for more information.
Click here for FEMA Map Service Center address link.

Displaying 1 - 1 (Total: 1)

Page 1 of 1

Home Layers Parcels (1)



158 EDISON ROAD

Location	158 EDISON ROAD	**Mblu**	E/10 / 00304/ 000/
Acct#		**Owner**	TRUMBULL TOWN OF
Assessment	$4,066,090	**Appraisal**	$5,808,700
PID	12741	**Building Count**	1
Fire District	L		

Current Value

Appraisal	
Valuation Year	**Total**
2021	$5,808,700
Assessment	
Valuation Year	**Total**
2021	$4,066,090

Owner of Record

Owner	TRUMBULL TOWN OF	**Sale Price**	$0

Co-Owner		**Book & Page**	29/ 587
Address	5866 MAIN STREET TRUMBULL, CT 06611	**Sale Date**	03/27/1929
		Instrument	

Ownership History

Ownership History				
Owner	**Sale Price**	**Book & Page**	**Instrument**	**Sale Date**
TRUMBULL TOWN OF	$0	29/ 587		03/27/1929

Building Information

Building 1 : Section 1

Year Built: 1981
Living Area: 28,105

Building Attributes	
Field	**Description**
STYLE	Police Station
Stories:	2 Stories
Occupancy	1
Exterior Wall 1	Brick Masonry
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	Tar & Gravel
Interior Wall 1	Drywall
Interior Wall 2	

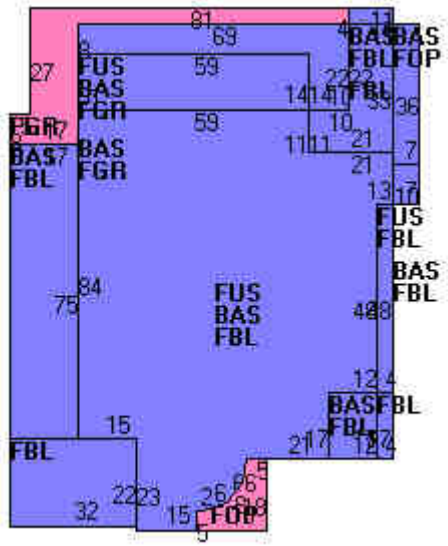
Building Photo

E10-304 04/29/2015

(https://images.vgsi.com/photos2/TrumbullCTPhotos//\00\02\11/62.JPG)

Building Layout

Interior Floor 1	Carpet
Interior Floor 2	Vinyl
Heating Fuel	Gas
Heating Type	Hot Water
AC Type	Central
Bldg Use	Police Dept
1st Floor Use:	
Heat/AC	Heat/AC Split
Frame Type	Fireprf Steel
Baths/Plumbing	Average
Ceiling/Walls	Sus-Ceil & WL
Rooms/Prtns	Average
Wall Height	12
% Comn Wall	



(https://images.vgsi.com/photos2/TrumbullCTPhotos//Sketches/12741_127

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	10,547	10,547
FBL	Fin Bsmt Living Area	9,785	9,785
FUS	Finished Upper Story	7,773	7,773
FGR	Attached Garage	2,254	0
FOP	Open Porch	441	0
		30,800	28,105

Extra Features

Extra Features			Legend
Code	**Description**	**Size**	**Bldg #**

ELV	Elevator	1 Units	1

Land

Land Use

Use Code	929
Description	Police Dept
Zone	A
Neighborhood	110
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	2.3
Frontage	
Depth	

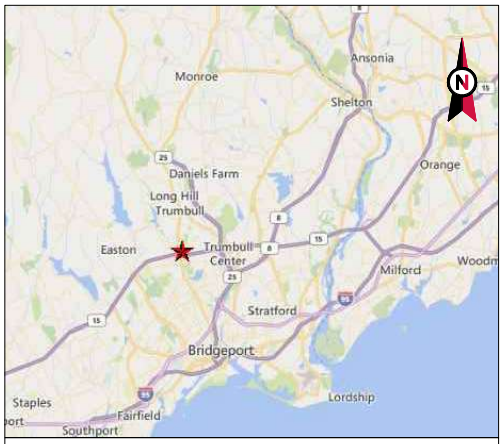
Outbuildings

Outbuildings					Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Bldg #**
PAV1	Paving Asph.			60000 S.F.	1
LT1	Light - 1			13 Units	1
LT2	Light - 2			1 Units	1
ANTS	Self Sup Tower			100 L.F.	1

Valuation History

Appraisal	
Valuation Year	**Total**
2020	$4,986,300
2019	$4,986,300
2018	$4,986,300

Assessment	
Valuation Year	**Total**
2020	$3,490,410
2019	$3,490,410
2018	$3,490,410



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: TRUMBULL CT
ATC SITE NUMBER: 210746
VERIZON SITE NAME: TRUMBULL SO III CT
VERIZON SITE NUMBER:467849
SITE ADDRESS: 158 EDISON ROAD
TRUMBULL,CT 06611

LOCATION MAP

VERIZON
AMENDMENT DRAWINGS

COMPLIANCE CODE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. INTERNATIONAL BUILDING CODE (IBC)
2. NATIONAL ELECTRIC CODE (NEC)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: UNKNOWM
PHONE: N/A

TELEPHONE COMPANY: UNKNOWN
PHONE: N/A

811 Know what's below. Call before you dig.

PROJECT SUMMARY

SITE ADDRESS:

158 EDISON ROAD
TRUMBULL,CT 06611
COUNTY: FAIRFIELD

GEOGRAPHIC COORDINATES:

LATITUDE: 41.23430995
LONGITUDE: -73.21882375
GROUND ELEVATION: 320' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

VERIZON WIRELESS

ENGINEER:

ATC TOWER SERVICES, LLC
3500 REGENCY PKWY STE 100
CARY, NC 27518

PROPERTY OWNER:

TOWN OF TRUMBULL
158 EDISON ROAD
TRUMBULL,CT 06611

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

REMOVE (3) ANTENNA(s) AND (9) RRH(s)

INSTALL MOUNT MODIFICATIONS, (3) ANTENNA(s), AND (6) RRH(s)

EXISTING (6) ANTENNA(s), (2) OVP(s),AND (2) 1-5/8" HYBRID CABLE(s) TO REMAIN

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.
6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).

PROJECT LOCATION DIRECTIONS

GET ON CT-15 N FROM MAIN ST (0.5 MI). HEAD NORTH TOWARD EDISON RD. TURN RIGHT TOWARD EDISON RD. TURN LEFT ONTO EDISON RD. TURN LEFT ONTO MAIN ST (0.2 MI). TURN LEFT TO MERGE ONTO CT-15 N TOWARD NEW HAVEN (0.2 MI). TAKE CT-25 S AND I-95 N TO CT-113 N/LORDSHIP BLVD. TAKE EXIT 30 FROM I-95 N (8.3 MI). MERGE ONTO CT-15 N (0.8 MI). TAKE EXIT 49S TO MERGE ONTO CT-25 S TOWARD BRIDGEPORT (5.1 MI). TAKE THE EXIT ON THE LEFT ONTO I-95 N TOWARD NEW HAVEN (2.2 MI). TAKE EXIT 30 TO MERGE ONTO CT-113 N/LORDSHIP BLVD (0.2 MI). CONTINUE ON LORDSHIP BLVD. DRIVE TO GREAT MEADOW RD (1.9 MI). MERGE ONTO CT-113 N/LORDSHIP BLVD (1.0 MI). TURN RIGHT ONTO LORDSHIP BLVD (0.5 MI). TURN LEFT ONTO GREAT MEADOW RD. DESTINATION WILL BE ON RIGHT.

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	04/27/22	JD
G-002	GENERAL NOTES	0	04/27/22	JD
C-101	DETAILED SITE PLAN	0	04/27/22	JD
C-201	TOWER ELEVATION	0	04/27/22	JD
C-401	ANTENNA INFORMATION & SCHEDULE	0	04/27/22	JD
C-501	CONSTRUCTION DETAILS	0	04/27/22	JD
E-501	GROUNDING DETAILS	0	04/27/22	JD
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			
	MOUNT MODIFICATIONS			

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JD	04/27/22
1			
2			
3			
4			

ATC SITE NUMBER:
210746

ATC SITE NAME:
TRUMBULL CT

VERIZON SITE NAME:
TRUMBULL SO III CT

SITE ADDRESS:
158 EDISON ROAD
TRUMBULL,CT 06611

SEAL:

Authorized by "EOR"

verizon design

DATE DRAWN:	04/27/22
ATC JOB NO:	13756735_G5
CUSTOMER ID:	TRUMBULL SO III CT
CUSTOMER #:	467849

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS. VERIZON "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL.
   - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
   - B. AC/TELCO INTERFACE BOX (PPC)
   - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
   - D. TOWERS, MONOPOLES
   - E. TOWER LIGHTING
   - F. GENERATORS & LIQUID PROPANE TANK
   - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
   - H. ANTENNAS (INSTALLED BY OTHERS)
   - I. TRANSMISSION LINE
   - J. TRANSMISSION LINE JUMPERS
   - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
   - L. TRANSMISSION LINE GROUND KITS
   - M. HANGERS
   - N. HOISTING GRIPS
   - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF VERIZON TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE VERIZON REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE VERIZON REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH VERIZON AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY VERIZON REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE VERIZON REP. ANY WORK FOUND BY THE VERIZON REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. VERIZON FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE VERIZON WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. VERIZON OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO VERIZON OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
   - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY VERIZON UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL.
   - B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND VERIZON SPECIFICATIONS.
   - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
   - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
   - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
   - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
   - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JD	04/27/22

ATC SITE NUMBER:
210746

ATC SITE NAME:
TRUMBULL CT

VERIZON SITE NAME:
TRUMBULL SO III CT

SITE ADDRESS:
158 EDISON ROAD
TRUMBULL, CT 06611

SEAL:

Authorized by "EOR"

verizon design

DATE DRAWN:	04/27/22
ATC JOB NO:	13756735_G5
CUSTOMER ID:	TRUMBULL SO III CT
CUSTOMER #:	467849

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

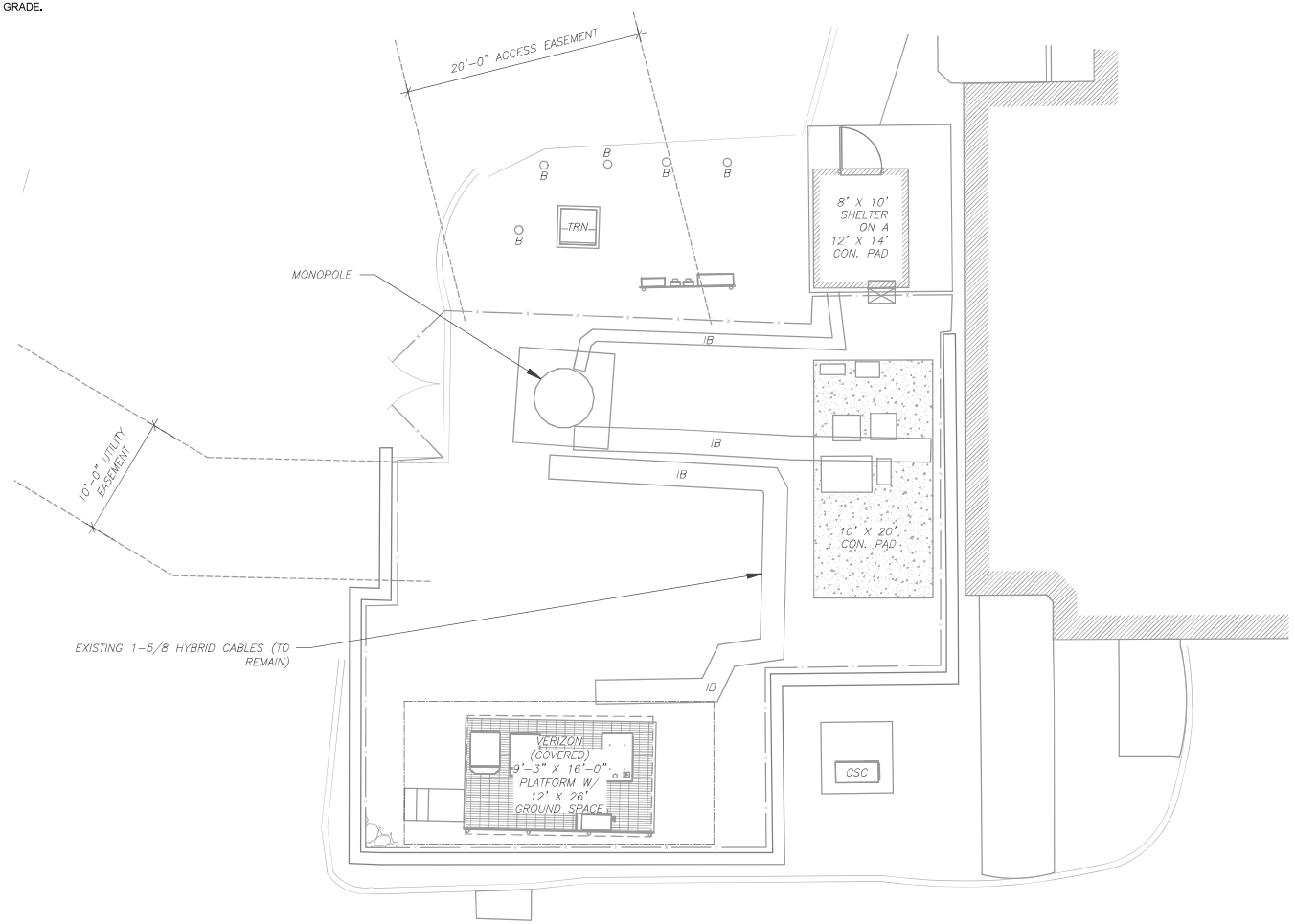
1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.

2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.

3. THIS PROJECT INCLUDES NO INSTALL OR MODIFICATION AT GRADE.

LEGEND

⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
——×——	CHAINLINK FENCE



1 DETAILED SITE PLAN

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 UNIT = 10 FEET

N

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JD	04/27/22

ATC SITE NUMBER:
210746

ATC SITE NAME:
TRUMBULL CT

VERIZON SITE NAME:
TRUMBULL SO III CT

SITE ADDRESS:
158 EDISON ROAD
TRUMBULL, CT 06611

SEAL:

STATE OF CONNECTICUT
SCOTT A. WIRGAU
30575
LICENSED
PROFESSIONAL ENGINEER

Authorized by "EOR"

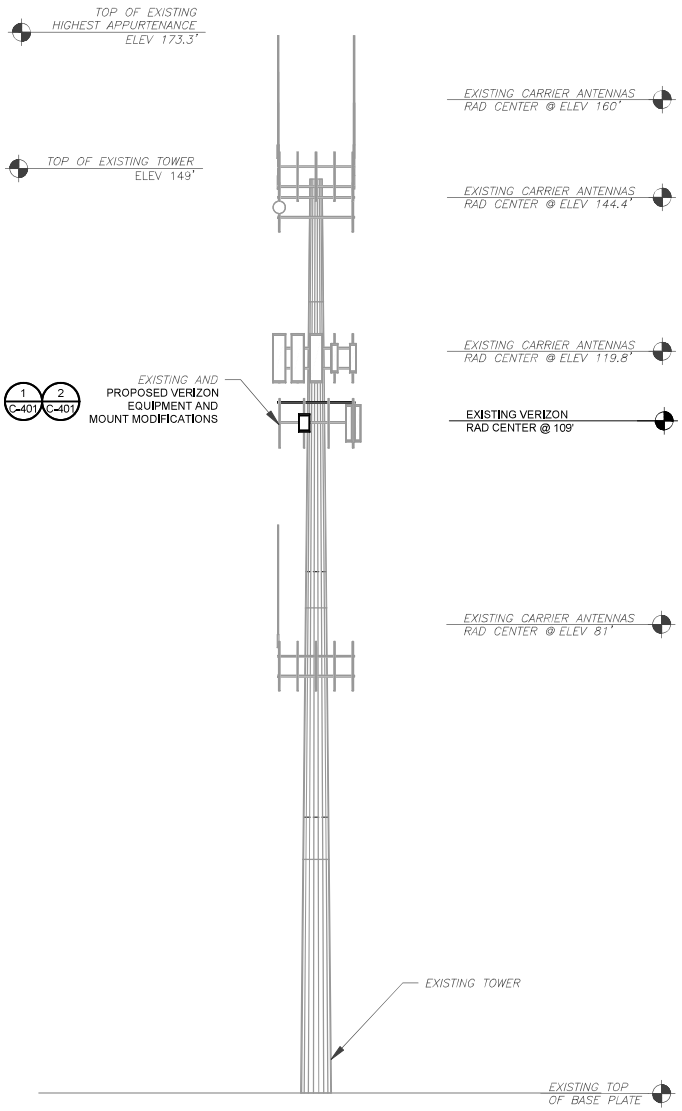
verizon design

DATE DRAWN:	04/27/22
ATC JOB NO:	13756735_G5
CUSTOMER ID:	TRUMBULL SO III CT
CUSTOMER #:	467849

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

PER MOUNT ANALYSIS COMPLETED BY MASER CONSULTING, DATED 04/21/22, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION DETAILED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.



1 TOWER ELEVATION
SCALE: N.T.S.

TOWER NOTE:
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
3. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)
4. TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JD	04/27/22

ATC SITE NUMBER:
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ATC SITE NAME:
TRUMBULL CT

VERIZON SITE NAME:
TRUMBULL SO III CT

SITE ADDRESS:
158 EDISON ROAD
TRUMBULL,CT 06611

SEAL:

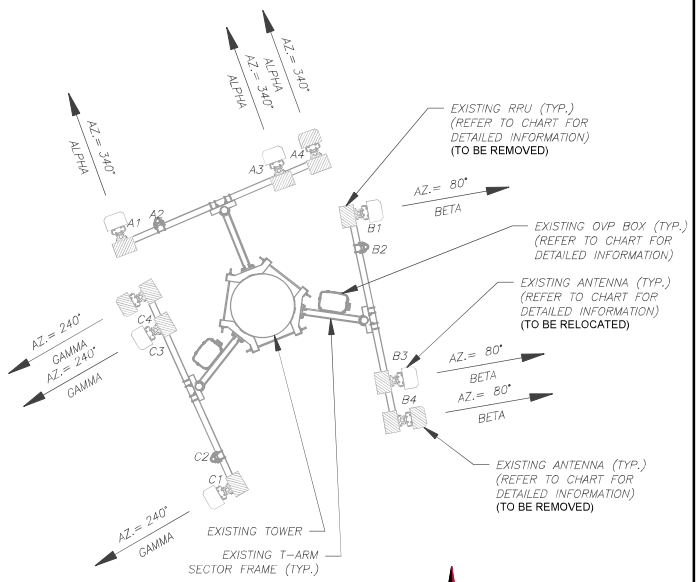
Authorized by "EOR"

verizon design

DATE DRAWN:	04/27/22
ATC JOB NO:	13756735_G5
CUSTOMER ID:	TRUMBULL SO III CT
CUSTOMER #:	467849

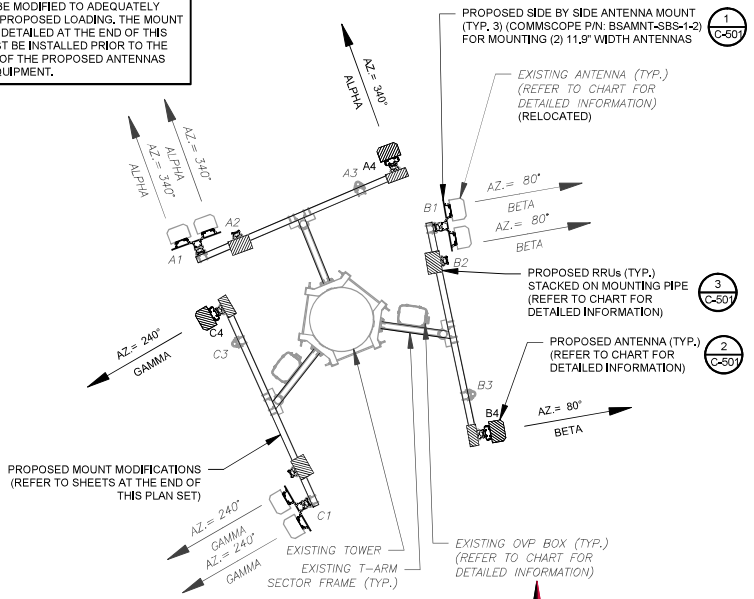
TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0



1 EXISTING ANTENNA PLAN
SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY MASER CONSULTING, DATED 04/21/22, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION DETAILED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.



2 FINAL ANTENNA PLAN
SCALE: N.T.S.

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH-ELEC	STATUS	ADDL TOWER MOUNTED	STATUS
ALPHA	109.0	340	A1	SBNHH-1D65B	700/850/1900/ASWLTE & 850 5G	0-0	RMN	B13 RRH4x30-4R 700U	RMV
			A2	-	-	-	-	-	-
			A3	SBNHH-1D65B	700/850/1900/ASWLTE & 850 5G	0-0	REL	1900 MHz 4X45 RRH	RMV
			A4	SBNHH-1D65B	700/850/1900/ASWLTE & 850 5G	0-0	RMV	RRH4x45-B66 w/o Solar Shield	RMV
BETA		60	B1	SBNHH-1D65B	700/850/1900/ASWLTE & 850 5G	0-0	RMN	B13 RRH4x30-4R 700U	RMV
			B2	-	-	-	-	-	-
			B3	SBNHH-1D65B	700/850/1900/ASWLTE & 850 5G	0-0	REL	1900 MHz 4X45 RRH	RMV
			B4	SBNHH-1D65B	700/850/1900/ASWLTE & 850 5G	0-0	RMV	RRH4x45-B66 w/o Solar Shield	RMV
GAMMA		240	C1	SBNHH-1D65B	700/850/1900/ASWLTE & 850 5G	0-0	RMN	B13 RRH4x30-4R 700U	RMV
			C2	-	-	-	-	-	-
			C3	SBNHH-1D65B	700/850/1900/ASWLTE & 850 5G	0-0	REL	1900 MHz 4X45 RRH	RMV
			C4	SBNHH-1D65B	700/850/1900/ASWLTE & 850 5G	0-0	RMV	RRH4x45-B66 w/o Solar Shield	RMV

EXISTING FIBER DIST/SQUID

QTY	MODEL NUMBER	STATUS
2	RxxDC-3315-PF-48	RMN
*	*	RMV

EXISTING CABLING SUMMARY

QTY	LINE SIZE	STATUS
2	1 5/8" (1.63"-41.3mm) Fiber	RMN
*	*	RMV

NOTES

1. CONFIRM WITH VERIZON REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH-ELEC	STATUS	ADDL TOWER MOUNTED	STATUS
ALPHA	109.0	340	A1	SBNHH-1D65B	700/850/1900/ASWLTE & 850	0-0	RMN	-	-
			A2	SBNHH-1D65B	700/850/1900/ASWLTE & 850	0-0	REL	-	-
				-	-	0-0	-	RF4440d-13A	ADD
				-	-		-	RF4439d-25A	ADD
			A3	-	-	-	-	-	-
			A4	MT6407-77AWITH RRU	L-SUB6 5G	0-0	ADD	-	-
BETA		60	B1	SBNHH-1D65B	700/850/1900/ASWLTE & 850	0-0	RMN	-	-
			B1	SBNHH-1D65B	700/850/1900/ASWLTE & 850	0-0	REL	-	-
			B2	-	-	0-0	-	RF4440d-13A	ADD
				-	-		-	RF4439d-25A	ADD
			B3	-	-	-	-	-	-
			B4	MT6407-77AWITH RRU	L-SUB6 5G	0-0	ADD	-	-
GAMMA		240	C1	SBNHH-1D65B	700/850/1900/ASWLTE & 850	0-0	RMN	-	-
			C1	SBNHH-1D65B	700/850/1900/ASWLTE & 850	0-0	REL	-	-
			C2	-	-	0-0	-	RF4440d-13A	ADD
				-	-		-	RF4439d-25A	ADD
			C3	-	-	-	-	-	-
			C4	MT6407-77AWITH RRU	L-SUB6 5G	0-0	ADD	-	-

FINAL FIBER DIST/SQUID

QTY	MODEL NUMBER	STATUS
2	RxxDC-3315-PF-48	RMN
*	*	ADD

FINAL CABLING SUMMARY

QTY	LINE SIZE	STATUS
2	1 5/8" (1.63"-41.3mm) Fiber	RMN
*	*	ADD

3 EQUIPMENT SCHEDULES

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JD	04/27/22

ATC SITE NUMBER:
210746

ATC SITE NAME:
TRUMBULL CT

VERIZON SITE NAME:
TRUMBULL SO III CT

SITE ADDRESS:
158 EDISON ROAD
TRUMBULL,CT 06611

SEAL:

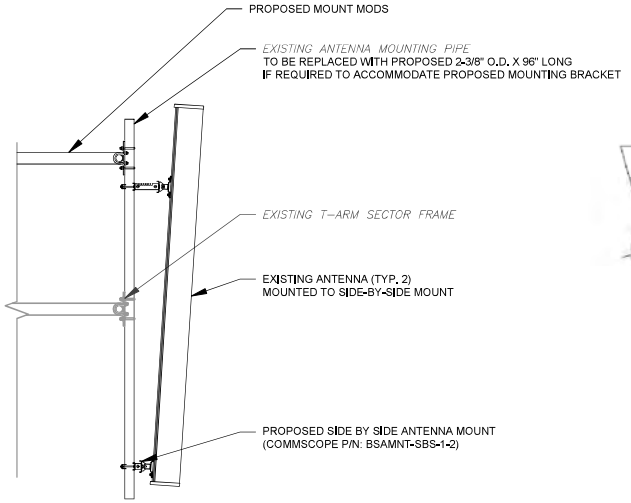
Authorized by "EOR"

verizon design

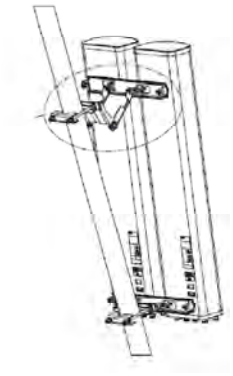
DATE DRAWN:	04/27/22
ATC JOB NO:	13756735_G5
CUSTOMER ID:	TRUMBULL SO III CT
CUSTOMER #:	467849

ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-401	0



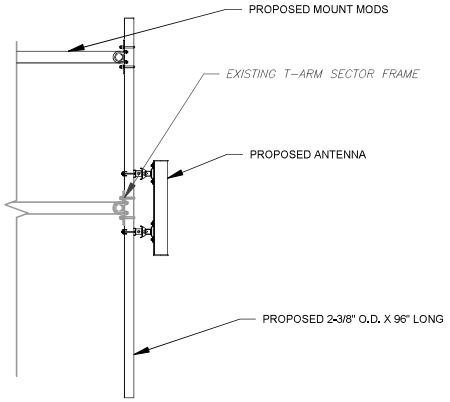
PROFILE VIEW



ISOMETRIC VIEW (BY MANUFACTURER)

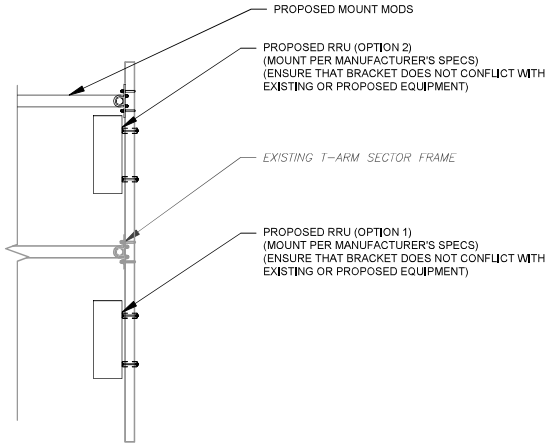
1 PROPOSED SIDE-BY-SIDE MOUNT

SCALE: NOT TO SCALE



2 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



3 PROPOSED RRU MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JD	04/27/22
1			
2			
3			
4			

ATC SITE NUMBER:
210746

ATC SITE NAME:
TRUMBULL CT

VERIZON SITE NAME:
TRUMBULL SO III CT

SITE ADDRESS:
158 EDISON ROAD
TRUMBULL,CT 06611

SEAL:

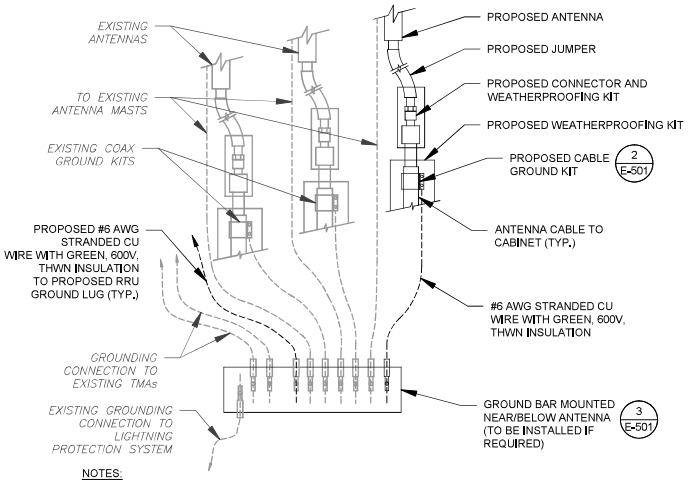
Authorized by "EOR"

verizon design

DATE DRAWN:	04/27/22
ATC JOB NO:	13756735_G5
CUSTOMER ID:	TRUMBULL SO III CT
CUSTOMER #:	467849

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

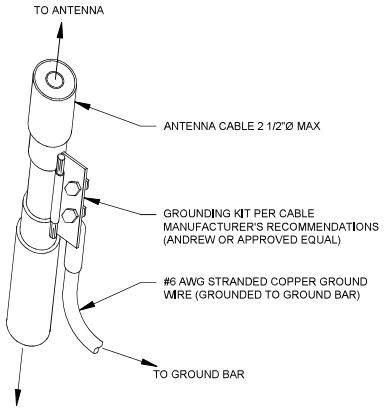


NOTES:

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH VERIZON GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH VERIZON GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

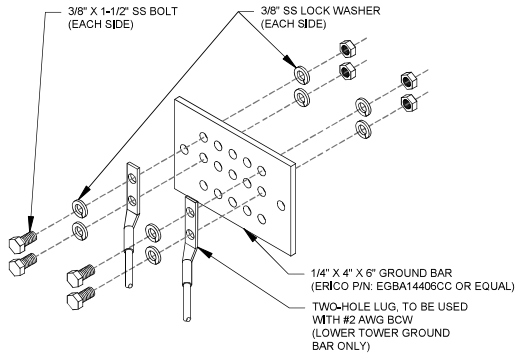


GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.



GROUND BAR NOTES:

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JD	04/27/22

ATC SITE NUMBER:
210746

ATC SITE NAME:
TRUMBULL CT

VERIZON SITE NAME:
TRUMBULL SO III CT

SITE ADDRESS:
158 EDISON ROAD
TRUMBULL,CT 06611

SEAL:

Authorized by "EOR"

verizon design

DATE DRAWN:	04/27/22
ATC JOB NO:	13756735_G5
CUSTOMER ID:	TRUMBULL SO III CT
CUSTOMER #:	467849

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

Maser Consulting Connecticut
2000 Midlantic Drive, Suite 100
Mt. Laurel, NJ 08054
856.797.0412
peter.albano@collersengineering.com

Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10139348
Maser Consulting Connecticut Project #: 21781059A

April 21, 2022

Site Information	*Site ID:*	*467849-VZW / TRUMBULL S 3 CT-Trumbull Police*
	Site Name:	*TRUMBULL S 3 CT-Trumbull Police*
	Carrier Name:	*Verizon Wireless*
	Address:	*158 Edison Rd*
		Trumbull, Connecticut 06611
		Fairfield County
	Latitude:	*41.23431944°*
	Longitude:	*-73.21883055°*
Structure Information	*Tower Type:*	*150-Ft Monopole*
	Mount Type:	*12.50-Ft T-Arm*

FUZE ID # 16486661

Analysis Results

T-Arm: **48.0% Pass w/ Modifications***

***Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis.**

******Contractor PMI Requirements:***
Included at the end of this MA report
Available & Submitted via portal at https://pmi.vzwsmart.com
For additional questions and support, please reach out to:
pmisupport@collersengineering.com

Report Prepared By: Cody Sherman

STATE OF CONNECTICUT · PETER MICHAEL ALBANO · No. 35459 · LICENSED PROFESSIONAL ENGINEER

Requirements:

The existing mounts will be **SUFFICIENT** for the final loading configuration (attachment 2) after the modifications detailed in attachment 3 are successfully completed.

Contractor shall inspect climbing facilities and safety climb and ensure they are in good condition. Contractor shall install safety climb wire rope guides in locations where wire rope is rubbing against the mount or mount-to-tower connection steel. Wire brush clean any observed corrosion and protect with two (2) coats of cold galvanization (Zinga or Zinc Kote). Contractor shall provide photos of wire rope guide installation as part of PMI documents. Contact EOR if additional guidance is required.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Attachments:

1. **Contractor Required PMI Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Modification Drawings
4. Mount Photos
5. Mount Mapping Report (for reference only)
6. Analysis Calculations

1 MOUNT ANALYSIS

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-601	0

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

Electronic pdf version of this can be downloaded at https://pmi.vzwsmart.com
For additional questions and support, please reach out to pmisupport@colliersengineering.com

PSLC #: 467849 SMART Project #: 10139348 Fuze Project ID: 16486661

Purpose – to upload the proper documentation to the SMART Tool in order to allow the SMART Tool engineering vendor to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the modification was completed in accordance with the modification drawings.
- Contractor shall relay any data that can impact the performance of the mount or the mount modification, this includes safety issues.

Base Requirements:

- If installation of the modification will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide "as built drawings" showing contractor's name, preparer's signature, and date. Any deviations from the drawings (proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the post-modification passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo shall be time and date stamped.
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: **https://pmi.vzwsmart.com**

Photo Requirements:

- *Photos taken at ground level*
  - Photo of Gate Signs showing the tower owner, site name, and number.
  - Overall tower structure after installation of the modifications.
  - Photos of the mount after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed

- *Photos taken at Mount Elevation*
  - Photos showing the safety climb wire rope above and below the mount prior to modification.
  - Photos showing the climbing facility and safety climb if present
  - Photos showing each individual sector after installation of modifications. Each entire sector must be in one photo to show the interconnection of members.
    - These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
  - Photos that show the model number of each antenna and piece of equipment installed per sector.
  - Photos of each installed modification per the modification drawings; pictures shall also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
  - Photos showing the distances (relative distance between collars) of the installed modifications from the appropriate reference locations shown in the modification drawings.
  - Photos showing the installed modifications onto the tower (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, an elevation measurement shall be provided before the elevation change.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by the SMART Tool vendor.
  - If the materials are as specified on the drawings
    - The contractor shall provide the packing list, or the materials certifications for the materials utilized to perform the mount modification
    - Commscope, Metrosite, Perfect Vision, Sabre, and Site Pro have all agreed to support Verizon vendors with the necessary material certifications
  - If seeking permission to use an equivalent
    - It is required that the SMART Tool engineering vendor approval of such is included in the contractor submission package. There may be an additional charge for approval if the equivalent submission doesn't meet specifications as prescribed in the drawings.

☐ All hardware has been properly installed, and the existing hardware was inspected.

☐ The material utilized was as specified on the SMART Tool engineering vendor Mount Modification Drawings and included in the material certification folder is a packing list or invoice for these materials.

OR

☐ The material utilized was approved by a SMART Tool engineering vendor as an "equivalent" and this approval is included as part of the contractor submission.

Antenna & Equipment Placement and Geometry Confirmation:

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

1 MOUNT ANALYSIS

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-602	0

OR

☐ The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

Comments:

Was the mount modification completed in conjunction with the equipment change / installation?

☐ Yes ☐ No

Special Instructions / Validation as required from the MA or Mod Drawings:

Issue:

Contractor shall inspect climbing facilities and safety climb and ensure they are in good condition. Contractor shall install safety climb wire rope guides in locations where wire rope is rubbing against the mount or mount-to-tower connection steel. Wire brush clean any observed corrosion and protect with two (2) coats of cold galvanization (Zinga or Zinc Kote). Contractor shall provide photos of wire rope guide installation as part of PMI documents. Contact EOR if additional guidance is required.

Response:

Special Instruction Confirmation:

☐ The contractor has read and acknowledges the above special instructions.

Comments:

Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:

☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

☐ Yes ☐ No

Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

☐ Safety Climb in Good Condition ☐ Safety Climb Damaged

Comments:

Certifying Individual:

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

1 MOUNT ANALYSIS

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERYIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-603	0

verizon

MOUNT MODIFICATION DRAWINGS
EXISTING 12.50' T-ARM

TOWER OWNER: BLUE SKY TOWER PARTNERS LLC
TOWER OWNER SITE NUMBER: CT-5005

CARRIER SITE NAME: TRUMBULL S 3 CT - TRUMBULL POLICE
CARRIER SITE NUMBER: 467849
FUZE ID: 16486661

158 EDISON RD
TRUMBULL, CONNECTICUT 06611
FAIRFIELD COUNTY

LATITUDE: 41.23431944° N
LONGITUDE: 73.21883055° W

DESIGN CRITERIA

WIND LOADS

BASIC WIND SPEED (3 SECOND GUST), V = 118 MPH
EXPOSURE CATEGORY B
TOPOGRAPHIC CATEGORY 1
MEAN BASE ELEVATION (AMSL) = 319.05'

ICE LOADS

ICE WIND SPEED (3 SECOND GUST), V = 50 MPH
ICE THICKNESS = 1.00 IN

SEISMIC LOADS

SEISMIC DESIGN CATEGORY B
SHORT TERM MCER GROUND MOTION, S_S = .212
LONG TERM MCER GROUND MOTION, S_1 = .054

PROJECT INFORMATION

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON WIRELESS

PROJECT MANAGER

COMPANY: MASER CONSULTING CONNECTICUT
CONTACT: PETER ALBANO
PHONE: 856-797-0412
E-MAIL: PETER.ALBANO@COLLIERSENGINEERING.COM

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 10139348
VZW LOCATION CODE (PSLC): 467849
ANALYSIS DATE: 4/21/2022

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

SHEET INDEX

MASER CONSULTING CONNECTICUT
Customer Loyalty through Client Satisfaction
www.maserconsulting.com
Office Locations:
NEW JERSEY · NEW YORK · PENNSYLVANIA · VIRGINIA · FLORIDA · NORTH CAROLINA · SOUTH CAROLINA · NEW MEXICO · MARYLAND · GEORGIA · TEXAS · TENNESSEE · COLORADO

verizon

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PROTECT YOURSELF
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE:	JOB NUMBER:
AS SHOWN	21781059A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
1	8/9/2022	ISSUED FOR CONSTRUCTION	DMS	MA
0	8/1/2022	ISSUED FOR CONSTRUCTION	MAC	GM

STATE OF CONNECTICUT · PETER MICHAEL ALBANO · LICENSED PROFESSIONAL ENGINEER · No. 35709 · 8/9/2022

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE NAME:

TRUMBULL S 3 CT - TRUMBULL POLICE

158 EDISON RD
TRUMBULL, CONNECTICUT 06611
FAIRFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: TITLE SHEET

SHEET NUMBER: ST-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

SECTION 1 - VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	VZWSMART	VZWSMART-SFK4	T-ARM KIT	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1	106	318
1		VZWSMART-PLK7	MONOPOLE COLLAR MOUNT ASSEMBLY		150	150
12		VZWSMART-MSK2	CROSSOVER PLATE		15	180
3		VZWSMART-P40-312X150	150" LONG, PIPE 3 STD (3.5"OD X 0.216" THK)	GALVANIZED	95	285

SECTION 2 - OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
					TOTAL:	933

VZWSMART KITS - APPROVED VENDORS

COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM
METROSITE FABRICATORS, LLC	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM
PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM
SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM
SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

VZWSMART KITS - APPROVED VENDORS

NEWAVE	
CONTACT	NEWAVE SALES TEAM
PHONE	(971) 239-4762
EMAIL	SALES@NEWAVETC.COM
WEBSITE	WWW.NEWAVETC.COM
BETTER METAL, LLC	
CONTACT	DAVID STANSBERRY
PHONE	(615) 535-0990 (O), (615) 631-2520 (M)
EMAIL	DLS@BETTERMETAL.COM
WEBSITE	WWW.BETTERMETAL.COM

NOTES:

1. THE MANUFACTURERS LISTED ARE THE APPROVED VENDORS FOR THE VZW MOUNT KITS. EACH MANUFACTURER WILL BE AWARE OF WHICH KITS HAVE BEEN THROUGH THE VZW APPROVAL PROCESS AND THEY ARE IN TURN APPROVED TO SELL. PLEASE NOTE THAT THE MATERIAL UTILIZED ON THE MOUNT MODIFICATIONS WILL BE REVIEWED AS A PART OF THE DESKTOP PMI COMPLETED BY THE SMART TOOL VENDOR. IT WILL BE REQUIRED THAT THE VZW KITS SPECIFIED ARE UTILIZED IN THE MODIFICATIONS.
2. ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.

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AS SHOWN	21781059A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
1	01/11/2022	ISSUED FOR CONSTRUCTION	DMS	MK
0	11/12/2021	ISSUED FOR CONSTRUCTION	BAC	GM

STATE OF CONNECTICUT
PETER MICHAEL ALBANO
LICENSED
PROFESSIONAL ENGINEER
01/11/22

SITE NAME:

TRUMBULL S 3 CT - TRUMBULL POLICE

158 EDISON RD
TRUMBULL, CONNECTICUT 06611
FAIRFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE:
BILL OF MATERIALS

SHEET NUMBER:
SBOM-1

PROJECT NOTES

1. SEE MODIFICATION NOTES
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC/GOVERNING AUTHORITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
4. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE AS A RESULT OF CONSTRUCTION OF THIS FACILITY AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
6. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
7. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CONSTRUCTION DRAWINGS.
8. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THESE DRAWINGS MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
9. SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY POTENTIALLY DANGEROUS EXPOSURE LEVELS.
10. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY AS TO CAUSE A NUISANCE.
11. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS IS REQUIRED).

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TIA-222-H. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING STRUCTURES. ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THE CONTRACTOR'S WORK OR FROM DAMAGE DUE TO OTHER CAUSES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK, ORDERING MATERIAL, AND PREPARING OF SHOP DRAWINGS. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE ENGINEER IMMEDIATELY.
4. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
6. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/TIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/TIA-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.
8. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 30-MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, SHORING, BRACING AND ANY OTHER STRUCTURAL SYSTEMS AS REQUIRED TO RESIST ALL FORCES THAT MAY OCCUR DURING HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THEIR USE.
9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSI/TIA-322.
10. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
11. CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CONNECTIONS SHALL BE DESIGNED, COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.
12. DO NOT SCALE DRAWINGS.
13. DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
14. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZE AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT.

STRUCTURAL STEEL

1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
   a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
   b. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS
   c. AISC CODE OF STANDARD PRACTICE
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE SHOWN:

CHANNELS, ANGLES, PLATES, ETC.	ASTM A36 (GR 36)
STEEL PIPE	ASTM A53 (GR 35)
BOLTS	ASTM A325
NUTS	ASTM A563
LOCK WASHERS	LOCKING STRUCTURAL GRADE

3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR VERIFYING THE SUBSTITUTE IS SUITABLE FOR USE AND MEETS ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
   a. SUBMIT SHOP DRAWINGS TO
      PETER.ALBANO@COLLIERSENGINEERING.COM
   b. PROVIDE MASER CONSULTING PROJECT # AND MASER CONSULTING PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
7. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
8. CONTRACTOR SHALL PROTECT CUT ENDS OF ALL FIELD-CUT STEEL WITH TWO (2) COATS OF COLD GALVANIZATION (ZINGA OR ZINC COTE).
9. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4.9.2 REQUIREMENTS.
10. WHERE CONNECTIONS ARE NOT FULLY DETAILED ON THESE DRAWINGS, FABRICATOR SHALL DESIGN CONNECTIONS TO RESIST LOADS AND FORCES WHERE SHOWN ON DRAWINGS AND AS OUTLINED IN SPECIFICATIONS.
11. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
12. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT IS AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
13. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
14. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINGA OR ZINC COTE), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.

WELDING NOTES

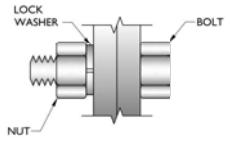
1. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AWS D1.0 (LATEST EDITION). THIS SHALL INCLUDE A CERTIFIED WELD INSPECTION (CWI) FOR ACCEPTANCE OR REJECTION OF ALL WELDING OPERATIONS, PRE, DURING, AND POST INSTALLATION, USING THE ACCEPTANCE CRITERIA OF AWS D1.1.
2. CONTRACTOR IS RESPONSIBLE FOR COMMISSIONING A THIRD PARTY CERTIFIED WELD INSPECTOR (CWI) THROUGHOUT THE ENTIRETY OF THE PROJECT. A PASSING CWI REPORT SHALL BE PROVIDED TO THE ENGINEER UPON COMPLETION OF THE PROJECT.
3. THE CERTIFIED WELD INSPECTOR SHALL INDICATE, IN A WRITTEN CWI REPORT, THAT ALL WELDING OPERATIONS PRE, DURING, AND POST INSTALLATION WERE CONDUCTED IN ACCORDANCE WITH AWS D1.1 WITH PHOTOGRAPHS AND DOCUMENTATION SUPPORTING THE ACCEPTANCE OR REJECTION OF ALL WELDING. ALL CWI WELD INSPECTION DOCUMENTATION AND PHOTOS SHALL BE SUBMITTED DURING THE PMI.
4. IN CASES WHERE A WELD IS SPECIFIED BETWEEN TWO MEMBERS IN WHICH THERE IS A GAP IN BETWEEN, THE WELD IS TO BE BUILT-UP SUCH THAT THE SIZE OF WELD ON THE MEMBER IS EQUAL TO THAT SHOWN IN THE DRAWINGS.
5. OXY FUEL GAS WELDING OR BRAZING IS STRICTLY PROHIBITED. SPECIFICALLY, NO TORCH CUTTING IS PERMITTED ON SITE. ALL HOLES SHALL BE CUT WITH A GRINDER.
6. CONTRACTOR SHALL EXERCISE CAUTION WHEN WELDING A GALVANIZED SURFACE.
7. CONTRACTOR SHALL HAVE A FIRE PROTECTION PLAN IN PLACE THAT CONFORMS WITH ALL OSHA, ANSI/ASSP A10.48, ANSI Z49.1, AND LOCAL JURISDICTIONAL REQUIREMENTS.

BOLT SCHEDULE (IN.)

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	SPACING
1/2	9/16	9/16 x 11/16	7/8	1 1/2
5/8	11/16	11/16 x 7/8	1 1/8	1 7/8
3/4	13/16	13/16 x 1	1 1/4	2 1/4
7/8	15/16	15/16 x 1 1/8	1 1/2	2 5/8
1	1 1/16	1 1/16 x 1 5/16	1 3/4	3

WORKABLE GAGES (IN.)

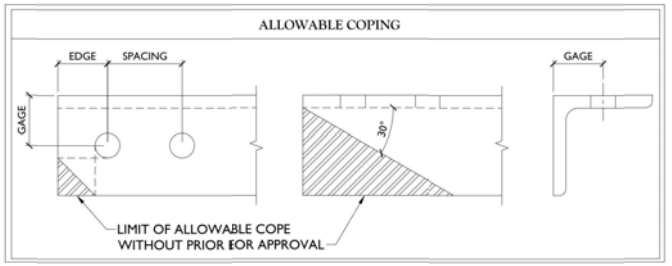
LEG	GAGE
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8



TYP. BOLT ASSEMBLY

NOTES:

1. ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
3. SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS
4. MATCH EXISTING GAGES WHEN APPLICABLE, UNLESS MINIMUM EDGE DISTANCES ARE COMPROMISED.



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2	10/19/2020	ISSUED FOR CONSTRUCTION	DMS	MA
1	9/17/2020	ISSUED FOR CONSTRUCTION	MAC	GM

STATE OF CONNECTICUT · PETER MICHAEL ALBANO · LICENSED PROFESSIONAL ENGINEER · No. 35-0391 · 9/30/2020

SITE NAME:

TRUMBULL S 3 CT - TRUMBULL POLICE

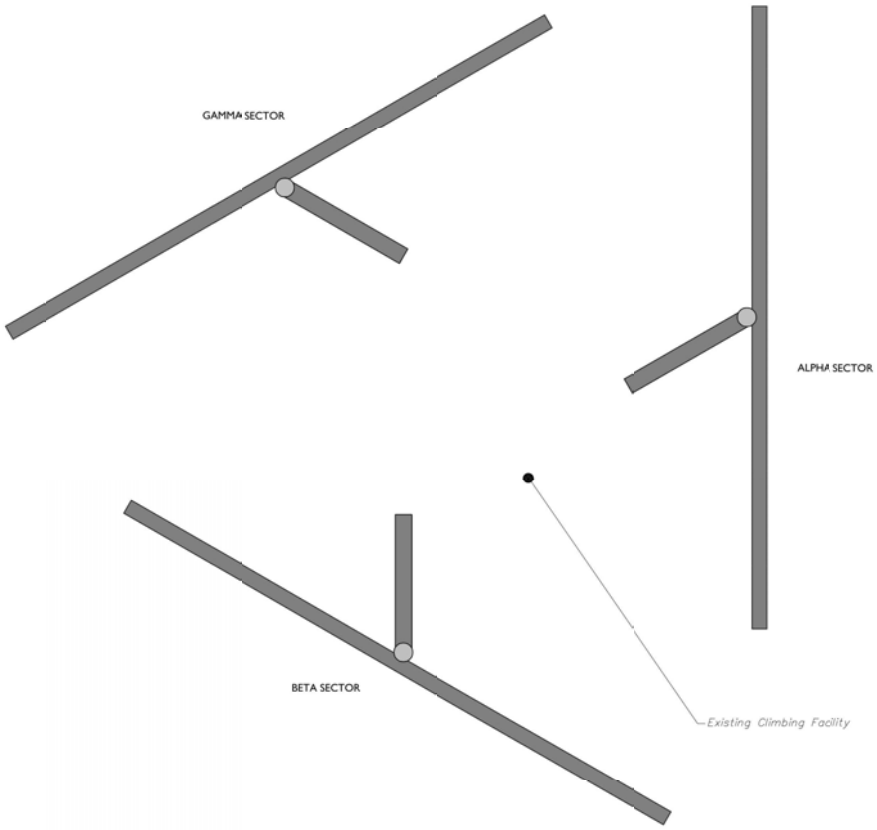
158 EDISON RD
TRUMBULL, CONNECTICUT 06611
FAIRFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: MODIFICATION NOTES

SHEET NUMBER: SGN-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION



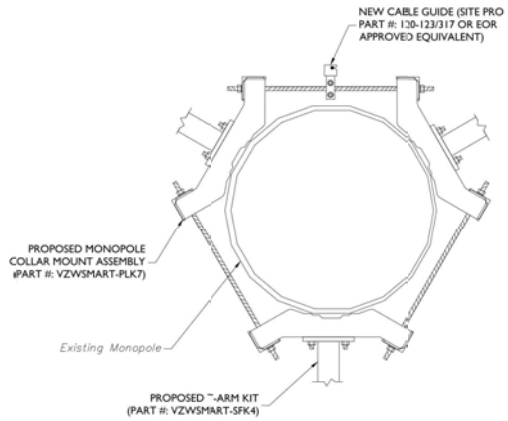
1 CLIMBING FACILITY LOCATION

SCALE : N.T.S.

STRUCTURAL NOTES:

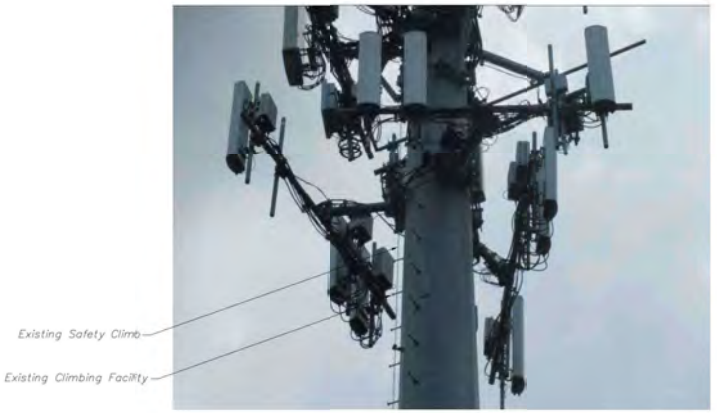
1. PER THE MOUNT MAPPING COMPLETED BY HUDSON DESIGN GROUP, LLC. ON 6/15/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (107'-0") ARE IN GOOD CONDITION. MASER DOES NOT WARRANT THIS INFORMATION.

2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.



2 PROPOSED CABLE GUIDE THREADED ROD ATTACHMENT - PLAN VIEW

SCALE : N.T.S.



CLIMBING FACILITY PHOTO

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STATE OF CONNECTICUT · PETER MICHAEL ALBANO · LICENSED PROFESSIONAL ENGINEER · No. 35709

SITE NAME:

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FAIRFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: CLIMBING FACILITY DETAIL

SHEET NUMBER: SCF-1

LEGEND:

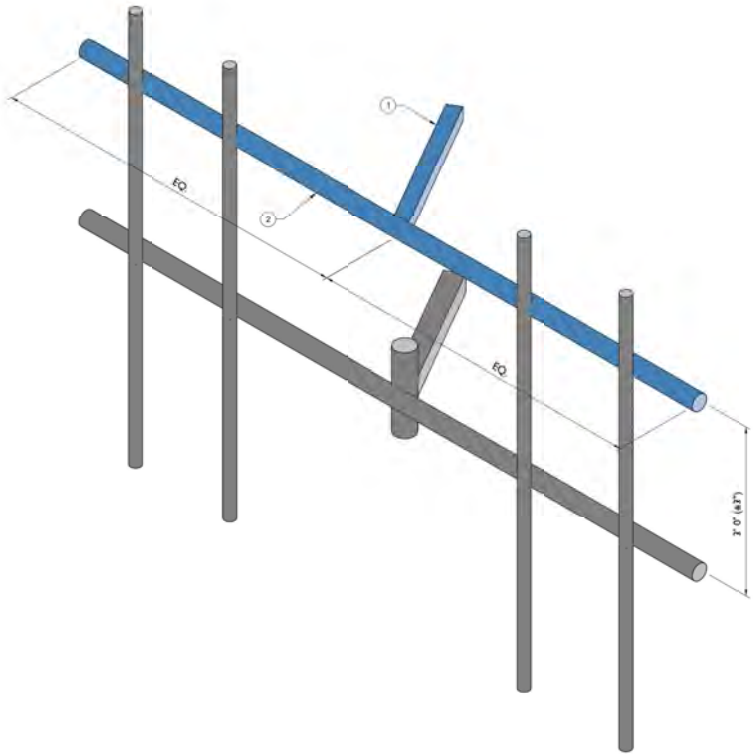
- PROPOSED
- RELOCATED
- EXISTING

MOUNT MODIFICATION SCHEDULE

NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	107'-0"	3	PROPOSED T-ARM KIT (PART #: VZWSMART-SFK4)	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SCN-1. CONNECT OTHER END OF T-ARM KIT TO MONOPOLE COLLAR MOUNT ASSEMBLY (PART #: VZWSMART-PLK7).
2		3	150" LONG, P3 STD FACE HORIZONTAL (VZWSMART-P40-312X150)	GALVANIZED, CONNECT NEW HORIZONTAL TO ALL EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).

NOTES:

MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.



1 PROPOSED ISOMETRIC VIEW

SCALE : N.T.S.

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1	8/9/2022	ISSUED FOR CONSTRUCTION	DMS	MK
0	8/1/2022	ISSUED FOR CONSTRUCTION	BAC	GM

STATE OF CONNECTICUT · PETER MICHAEL ALBANO · LICENSED PROFESSIONAL ENGINEER · No. 35709

SITE NAME:

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FAIRFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: MODIFICATION DETAILS

SHEET NUMBER: SS-1

MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3

MOUNT PHOTO 4

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- GEORGIA
- TEXAS
- TENNESSEE
- COLORADO

verizon

811 Know what's below. Call before you dig.

PROTECT YOURSELF!
BEFORE YOU EXCAVATE, CALL NOT LESS THAN 72 HOURS BUT NOT MORE THAN 10 BUSINESS DAYS BEFORE YOU DIG, DRILL OR BLAST. CALL 811 OR 1-800-922-4455 OR DIAL 811 FOR ONE-CALL NOTIFICATION SYSTEM.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE:	JOB NUMBER:
AS SHOWN	21781659A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
1	6/7/2021	ISSUED FOR CONSTRUCTION	DMS	MK
0	5/7/2021	ISSUED FOR CONSTRUCTION	BAC	GM

STATE OF CONNECTICUT
PETER MICHAEL ALBANO
No. 35409
LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE NAME:

TRUMBULL S 3 CT - TRUMBULL POLICE

158 EDISON RD
TRUMBULL, CONNECTICUT 06611
FAILFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE:
MOUNT PHOTOS

SHEET NUMBER:
SS-2